

10/03/00 TUE 12:12 FAX

Site: 6E-0000
Break: 10.8
Other: 9250

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS
WESTERN DIVISION

UNITED STATES OF AMERICA,
COMMONWEALTH OF MASSACHUSETTS,
STATE OF CONNECTICUT,

Plaintiffs,

v.

GENERAL ELECTRIC COMPANY,

Defendant.

C.A. Nos. 30225-MAP
30226-MAP
and 30227-MAP

(Consolidated)

Cristóbal Bonifaz (BBO 548-405)
John C. Bonifaz (BBO 562-478)
LAW OFFICES OF CRISTOBAL BONIFAZ
48 North Pleasant Street
P.O. Box 2488
Amherst, MA 01004-2488
Tel: (413) 253-5626

Joseph C. Kohn
Martin D'Urso
Michael J. Boni
Neil L. Glazer
KOHN, SWIFT & GRAF, P.C.
One South Broad Street, Suite 2100
Philadelphia, PA 19107
Tel: (215) 238-1700

ATTORNEYS FOR PLAINTIFFS-INTERVENORS

10/03/00 TUE 12:12 FAX

TABLE OF CONTENTS

<u>ITEM</u>	<u>PAGE</u>
MEMORANDUM OF LAW IN OPPOSITION OF ENTRY OF THE CONSENT DECREE	1
I. Introduction	1
II. Argument	2
A. Overview	2
B. The Consent Decree Violates CERCLA And Must Be Rejected By This Court.	2
C. The Consent Decree Fails To Meet CERCLA Standards.	7
D. Impacted Areas Not Properly Addressed By The Consent Decree.	8
1. Background	8
2. GE Dumped Millions Of Pounds Of PCBs In Berkshire County From 1932 to 1981 Which Contaminated, And Continue To Contaminate The Housatonic River And Properties Of Plaintiffs- Intervenors.	9
3. The Remedial Decision For The 1/2 Mile of the Housatonic River from the GE Facility to Lyman Street - ("The 1/2 Mile Reach") - Will Not Adequately Prevent PCBs From Recontaminating The River And The Properties Of Plaintiffs Intervenors In The Future.	12
4. The Hill 78 and Building 71 Landfills Located Within The GE Property Will Continue To Contaminate Pittsfield's Groundwater, Endanger The Housatonic River, The Schoolchildren At The Allendale School, And Affect The Properties of Plaintiffs- Intervenors and All Other Owners of Real Properties Located In The Housatonic River Floodplain.	17
5. The Current Plan For Remediation of Silver Lake Will Render This Body Of Water Useless, A Continuing Threat To The Housatonic River, And A Danger of PCB Recontamination On The Properties Of Plaintiff Intervenors and Other Flood <u>Plain</u> Residents.	23

10/03/00 TUE 12:12 FAX

6.	The PCB Contamination Of The West Branch Of The Housatonic River Has Not Been Addressed In The Consent Decree, Rendering Any PCB Removal From The Confluence Of The West And East Branches An Exercise In Futility And Continuing The Pollution With PCBs Of The Properties Of Those Plaintiffs Intervenor Who Own Real Properties Down Stream From The Confluence Of The Two Rivers.	27
7.	The Consent Decree Fails To Address The Fact That GE Gave Away Contaminated Wood From Its Transformers To The Citizens Of Pittsfield And Some Businesses And Possibly Homes Were Built With PCB-Contaminated Wood	28
8.	The Consent Decree Fails To Address The Fact That Some Commercial Buildings In Seriously Contaminated Areas Along Newell Street Have Earth Floors Contaminated With PCBs Presenting A Serious Danger To Their Owners and Their Workers.	29
9.	The Compromise Reached Between GE And The Agencies Which Made The Consent Decree Possible Was That Large Areas Of Pittsfield Encompassing Properties of Along Newell Street Do Not Get Cleaned-Up To Massachusetts Default Standards Rendering These Properties Worthless Which Represents A Regulatory Taking Of Those Properties.....	29
10.	Pittsfield's Groundwater Will Remain Forever Unusable Due To Its Contamination With PCBs Under The Terms Of The Consent Decree	36
11.	The Natural Resources Damage Award Is Grossly Inadequate And Represents A Fraction of the Defendant's Actual Liability For Natural Resource Damages.....	38
12.	Public Health Studies Published Recently Confirm The Dangers of Exposing Plaintiffs Intervenor and Other Residents of Pittsfield to Even Low Levels of PCBs.	51
III. Conclusion		57

10/03/00 TUE 12:13 FAX

TABLE OF AUTHORITIES

FEDERAL CASES

Abrams Metals, 155 F.R.D. at 1024	5
In re Acushnet River & New Bedford Harbor: Proceedings re Alleged PCB Pollution, 712 F. Supp. 1019 (D. Mass. 1989)	2
Channel Master Satellite System, Inc. v. JFD Electric Corp., 748 F. Supp. 373 (E.D. N.C. 1990)	4
Channel Master, 748 F. Supp. at 385	5
Mullin v. Rathcon Co., 164 F.3d 696 (1st Cir. 1999)	6
Sherwin-Williams Co. v. City of Hamtramck, 840 F. Supp. 470 (E.D. Mich. 1993)	4
Sherwin-Williams, 840 F. Supp. at 475	5
State of Minnesota v. Kalman W. Abrams Metals, Inc., 155 F.3d 1019 (8 th Cir. 1998)	4
State of Utah v. Kennecott Corp., 801 F. Supp. 553 (D. Utah 1992)	2
United States v. Town of Moreau, New York and General Electric Co., 751 F. Supp. 1044 (N.D.N.Y. 1990)	2

FEDERAL STATUTES

40 C.F.R. §§ 300.410, 300.415 (removal actions)	5
42 U.S.C. § 9613(f)(2)	5
42 U.S.C. 9621(b) (Emphasis added)	7

10/03/00 TUE 12:13 FAX

42 U.S.C. 9621(b)	22
42 U.S.C. 9621(b)	22
42 U.S.C. § 9622(f)(1)	6
42 U.S.C. 9622(f)(4)	8
42 U.S.C. 6901 et seq.	7

10/03/00 TUE 12:13 FAX

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS
WESTERN DIVISION

UNITED STATES OF AMERICA,
COMMONWEALTH OF MASSACHUSETTS,
STATE OF CONNECTICUT,

Plaintiffs,

v.

GENERAL ELECTRIC COMPANY,

Defendant.

C.A. Nos. 30225-MAP
30226-MAP
and 30227-MAP
(Consolidated)

MEMORANDUM OF LAW IN OPPOSITION OF ENTRY
OF THE CONSENT DECREE

I. Introduction

Caroline Church, Dorothy Cohen, Thomas and Frances Ferguson, Abby Kramer Mayou, Gerald and Patricia Reder, Gwendolyn Sears, Tim and Nancy Smith, and the Mildred L. Zimmerman Trust (hereafter, "Plaintiffs-Intervenors"), by and through their undersigned attorneys, oppose entry of the Consent Decree because it violates CERCLA and fails to address properly all PCB contamination problems of the site.

10/03/00 TUE 12:13 FAX

II. Argument

A. Overview

This Court is empowered to reject a proposal consent decree that is not fair and reasonable or does not inadequately protect the public interest. See, e.g., United States v. Town of Moreau New York and General Electric Co., 751 F.Supp. 1044, 1051-52 (N.D.N.Y. 1990). As set forth below, the proposed consent decree here should be rejected because it suffers from deficiencies in the scope of the proposed clean-up, see State of Utah v. Kennecott Corp., 801 F.Supp. 553 (D. Utah 1992), as well as a failure to abide by the letter and spirit of CERCLA in connection with, inter alia, covenants not to sue. See In re Acushnet River & New Bedford Harbor Proceedings re Alleged PCB Pollution, 712 F.Supp. 1019, 1038 (D. Mass. 1989).

B. The Consent Decree Violates CERCLA And Must Be Rejected By This Court.

As currently structured, the Consent Decree would treat all cleanup efforts for the entire Upper Two-Mile Reach of the Housatonic River as a series of "removal actions" rather than a "remedial action." As a result of this proposed sleight of hand, Pittsfield residents would be denied many of the procedural safeguards that CERCLA promises and they need. Nevertheless, the United States insists that, despite the clear statutory language limiting, inter alia, covenants not to sue to CERCLA remedial actions, it may impose such limitations in removal actions as well simply because the United States has broad discretion to decide when and how to settle cases.

Contrary to the United States' disregard for the language of CERCLA as well as rules of statutory construction, CERCLA consent decrees do not bestow a grant of absolute

10/03/00 TUE 12:14 FAX

power and discretion to the United States. No statute does. Rather, CERCLA is a carefully structured statute that sets forth clear limits to the Government's power to undertake certain response actions in environmental cases, and to the Government's powers with respect to promises it may make in exchange for settlements of claims against potentially responsible parties. The United States must comply with the requirements of the statute; its failure to do so here dooms the consent decree presented to this Honorable Court.

With respect to removal versus remediation, the Government argues — contrary to every court case the intervenors are aware of — that it alone has the discretion to decide whether to undertake a removal or a remedial action. Moreover, the Government would have the Court accept EPA's recently released, internal "guidance" memorandum as authority a defacto statutory amendment that supports its contention that all the case precedent is wrong, and the United States does not have to abide by the distinctions between CERCLA removal and remedial actions. Nothing could be further from the truth. Accepting the Government's vague and broad interpretation of the "overlap" between removal and remedial actions would eliminate all distinctions between them. And that would be clearly contrary to the Congressional intent, as evinced by the fact that the statute itself distinguishes between these two different response categories, as well as the numerous court cases that interpret those distinctions.

The United States attempts to support its decision to characterize the response actions concerning the Upper Two-Mile Reach as "removal" actions by consistently referring to the urgent nature of the situation. Such language, however, is belied by the facts. Government officials have been aware of PCB contamination in and around Pittsfield and the Housatonic River since at least the early 1980s. The MADEP took action as early as 1991, when it issued

10/03/00 TUE 12:14 FAX

the first of a series of Administrative Consent Orders requiring GE to undertake specified cleanup actions. The EPA issued its first order shortly thereafter, and has since issued a number of administrative orders with respect to the PCB contamination at issue here. Moreover, the government agencies and GE negotiated on and off for years, only reaching agreement after the United States publicly announced that it was going to recommend adding the Site to the National Priorities List. Indeed, while the EPA has known for years not only about this problem in general, but about the serious nature of the PCB contamination caused solely by GE, no government lawsuit was filed until after they reached an agreement with GE on the Consent Decree. Such are not the stuff emergency environmental situations are made of.

"The EPA regulations distinguish between removal actions — those taken to counter imminent and substantial threats to public health and welfare — and remedial actions, which are longer term, more permanent responses." State of Minnesota v. Kalman W. Abrams Metals, Inc., 155 F.3d 1019, 1024 (8th Cir. 1998). "Removal actions are short term responses to imminent threats to the public safety or the environment. They are to be taken 'in response to an immediate threat to the public welfare or to the environment.'" Sherwin-Williams Co. v. City of Hamtramck, 840 F. Supp. 470, 475 (E.D. Mich. 1993) (quoting Anland Properties Corp. v. Alcoa, 711 F. Supp. 784, 795 (D.N.J. 1989)). "CERCLA distinguishes the two types because 'removal actions were designed to provide an opportunity for immediate action . . . without detailed review, where there is no time to safely conduct such review due to the exigencies of the situation.'" Id. (quoting Channel Master Satellite Sys., Inc. v. JFD Elec. Corp., 748 F. Supp. 373, 385-86 (E.D. N.C. 1990)).

10/03/00 TUE 12:15 FAX

In fashioning the Decree as a series of removal actions, rather than as a remedial action, the EPA and MADEP, working in conjunction with GE, have attempted to circumvent one of the more significant protections of the National Contingency Plan, which "prescribes more detailed procedures and standards for remedial actions." Abrams Metals, 155 F.R.D. at 1024. (comparing 40 C.F.R. §§ 300.410, 300.415 (removal actions), with §§ 300.420-300.435 (remedial actions)).

"Remedial actions are subject to a much higher degree of regulation than that required of removal actions." Sherwin-Williams, 840 F. Supp. at 475. In Sherwin-Williams, the court found dispositive the fact that "the cleanup of the site has taken place over the course of five years for the first phase of the operation, and has taken three years and is ongoing in the second phase . . . the extended and protracted nature of the cleanup indicate that the City has engaged in a remedial action." 840 F. Supp. 475-76. See also Abrams Metals, 155 F.R.D. at 1024 ("the permanent nature of the . . . site cleanup and the leisurely manner in which [the governments] dealt with the problem make it appropriate to hold the [governments] to the NCP standards for remedial actions"); Channel Master, 748 F. Supp. at 385 ("the timing of plaintiff's response belies any characterization of the Oxford site conditions as urgent or exigent"; two year delay between soil testing that identified existence of problem and actual cleanup held to require characterization as remedial action instead of removal).¹

Moreover, the Decree contains broad covenants by the United States not to sue GE in the future with respect to the matters covered by the Decree. The inclusion of these covenants

¹Further, because the Decree is invalid inasmuch as it contains provisions that violate CERCLA, the governments cannot grant GE the broad contribution protection contained in the Decree, since such contribution protection is only available under CERCLA for Decrees approved by the Court (which in this case, cannot be granted with respect to the Decree in its current form). 42 U.S.C. § 9613(O)(2).

10/03/00 TUE 12:15 FAX

invalidates the Decree, however, because it has been fashioned as a series of removal actions (at least with respect to the upper two-mile reach of the River), and CERCLA only permits the inclusion of covenants not to sue for liability resulting from releases or threatened releases of hazardous substances "addressed by a remedial action." 42 U.S.C. § 9622(f)(1). As noted above, Congress drew a clear distinction in the CERCLA statute between "removal" and "remedial," and its choice of the latter term in this section of the statute is clear evidence of Congressional intent to circumscribe the conditions under which the United States is authorized to grant covenants not to sue. Any other interpretation "[f]lies in the teeth of the well-settled canon that 'all words and provisions of statutes are intended to have meaning and are to be given effect, and no construction should be adopted which would render statutory words or phrases meaningless, redundant or superfluous.'" Mullin v. Rathen Co., 164 F.3d 696, 702 (1st Cir. 1999) (quoting United States v. Ven-Fuel, Inc., 758 F.2d 741, 751-52 (1st Cir. 1985)). For this reason alone, the Court cannot approve the Consent Decree (or, at the very least, the Court may do so only if the parties strike the covenant not to sue).

Each of these legal defects in the Consent Decree directly affects the ability of the River Property Owners to protect their interests. The lack of greater procedural protections and standards applicable to remedial actions; the granting of broad covenants not to sue; and even the broad contribution protection granted to GE; each of these aspects of the Decree diminishes the protections available to the River Property Owners, exposes them to added risks of future contamination, and reduces the likelihood that they will either be protected by future actions by the governments or by their ability to pursue their own remedies in civil litigation.

10/03/00 TUE 12:15 FAX

C. The Consent Decree Fails To Meet CERCLA Standards.

CERCLA Section 9621(b), states:

- (1) Remedial actions in which treatment which permanently and significantly reduces the volume, toxicity, or mobility of the hazardous substances, pollutants, and contaminants is a principal element, are to be preferred over remedial actions not involving such treatment. The offsite transport and disposal of hazardous substances or contaminated materials without such treatment should be the least favored alternative remedial action where practicable treatment technologies are available. The President shall conduct an assessment of permanent solutions and alternative treatment technologies or resource recovery technologies that, in whole or in part, will result in a permanent and significant decrease in the toxicity, mobility, or volume of the hazardous substance, pollutant, or containment. In making such assessment, the President shall specifically address the long-term effectiveness of various alternatives. In assessing alternative remedies, the President shall, at a minimum, take into account:
- (A) the long- term uncertainties associated with land disposal;
 - (B) the goals, objectives, and requirements of the Solid Waste Disposal Act (42 U.S.C 6901 et seq.);
 - (C) the persistence, toxicity, mobility, and propensity to bioaccumulate of such hazardous substances and their constituents;
 - (D) short- and long-term potential for adverse health effects from human exposure;
 - (E) long-term maintenance costs;
 - (F) the potential for future remedial costs if the alternate remediate action were to fail; and
 - (G) the potential threat to human health and the environment associated with excavation, transportation, and redisposal, c. containment. The President shall select a remedial action that is protective of human health and the environment, that is cost effective, and that utilizes permanent solutions and alternative treatment technologies or resource recovery technologies to maximum extent practicable. If the President selects a remedial action not appropriate for a preference under this subsection, the President shall publish an explanation as to why a remedial action involving such reductions was not selected.
- (2) The President may select an alternative remedial action meeting the objectives of this subsection whether or not such action has been achieved in practice at any other facility or site that has similar characteristics. In making such a selection, the President may take into account the degree of support for such remedial action by parties interested in such site. 42 USC 9621(b) (Emphasis added).

Plaintiffs Intervenors believe that this Consent Decree fails to meet these standards. This site calls for a range of remedial actions and treatment "which permanently

10/03/00 TUE 12:16 FAX

and significantly reduces the volume, toxicity, or mobility of the hazardous substances.” (Id. at 9621(b)(1)). And this Defendant and Responsible Party is more than able to meet the costs associated with alternative, remedial actions and treatment “which permanently and significantly reduces the volume, toxicity, or mobility of the hazardous substances” (Id. at 9621(b)(1)).

Plaintiffs Intervenor believe that this Consent Decree fails to serve the public interest under CERCLA in these respects:

- The effectiveness and reliability of the remedy, in light of the other alternative remedies considered for the facility concerned.
- The nature of the risks remaining at the facility.
- The extent to which performance standard are included in the order or decree.
- The extent to which the response action provides a complete remedy for the facility.
- The extent to which the technology used in the response action is demonstrated to be effective. (42 USC 9622(f)(4)).

Because of these failures, Plaintiffs Intervenor believe that it is premature for the Court to accept the proposed covenants not to sue.

D. Impacted Areas Not Properly Addressed By The Consent Decree.

1. Background

In 1981, GE and the Agencies negotiated a Consent Order for this Housatonic River Site and Pittsfield. Eighteen years have elapsed before any large scale permanent clean-up action has begun in the Housatonic River. GE has brought to bear enormous financial and legal

10/03/00 TUE 12:16 FAX

resources in an effort to delay and limit its responsibility to clean this site. Over these last two decades, the Agencies have been hampered by a lack of financial and human resources. In the 1980s and early 1990s, the USEPA was constantly changing its personnel in charge of this site.

It has been the experience of Plaintiffs Intervenorors that from the initial discovery of contaminated milk coming from the DeVos farm in Lenox in the late 1970s, state and federal regulators have been extremely slow to fully comprehend the vast extent of PCB contamination that moved, and continues to move, from GE's Pittsfield plant to the surrounding areas, either directly through storm drains and storage tank leakage to the river, or in the form of contaminated materials transported from the GE facility to locations throughout the County. The Agencies were also extremely slow to take corrective action.

Public ignorance and inaction in this matter have stemmed from a complex mix of factors: GE's decisions not to disclose pertinent information; regulatory inaction; a widespread desire not to antagonize the principal employer of Berkshire County; and the very slow process of the scientific and public health community to fully appreciate, and adequately communicate to the public, the dangers of relatively small dosages of the PCBs and other contaminants used on a daily basis at GE.

2. GE Dumped Millions Of Pounds Of PCBs In Berkshire County From 1932 to 1981 Which Contaminated, And Continue To Contaminate The Housatonic River And Properties Of Plaintiffs-Intervenorors.

GE had a practice of allowing its PCB-contaminated oil and other contaminants to move freely from its industrial facility out into the surrounding areas: down its drains forming underground plumes, contaminating Pittsfield's groundwater, Silver Lake, Unkamet Brook, and the Housatonic River. Much of these discharges from GE's property were non-permitted

10/03/00 TUE 12:17 FAX

wastewater discharges. GE also had a practice of distributing PCB-contaminated materials off-site to the community.

So concerned was the Commonwealth with GE's failure to notify state agencies about its program in the 1940s and 1950s to distribute PCB-contaminated fill that on October 7, 1997, it filed Civil Action No. 99-4841E in Suffolk Superior Court. The Complaint alleged that GE failed to notify the Massachusetts DEP of releases and threats of releases of PCBs, that GE failed to produce documents responsive to its official requests, and that GE made inaccurate, incomplete and misleading statements in the responses GE submitted, and that GE violated the Housatonic River Order. (Exhibit A, Commonwealth of Massachusetts Complaint Civil Action No. 99-4841E; Exhibit B, R. Kelly Neiderjohn May 15, 1981 Letter; and Berkshire Eagle and Boston Globe articles).

Another example of inaccurate or incomplete information involves the estimated amount of PCB-contamination in the Housatonic River. GE's 1982 Stewart Report estimated that there was a total of 39,000 pounds (less than 20 tons) of PCBs in the Housatonic River from the GE site to the Connecticut border. The USEPA, in its initial 1988 RCRA Site Assessment for the entire GE/Pittsfield/Housatonic Site, quoted the GE Stewart Report's assessment of the PCB problem in the Housatonic River:

The PCB levels in sediments ranged from less than 1 to 210 ppm (dry weight) and appeared to be confined to the upper 12 inches of the sediment.

(Exhibit C, RCRA Site Assessment, III-29).

It took years and years of advocacy by concerned organizations and citizens in Pittsfield — including presenting testimony of Edward Bates, the former Manager of Tests at GE Power Transformer in Pittsfield, and his associate, Charles Fessenden, Supervisor of

10/03/00 TUE 12:17 FAX

Calculations at Power Transformer -- to establish that at least a million and a half pounds of GE's PCBs had gone down the drain and into the river, due to daily spillage and loss at Power Transformer alone. The Housatonic River Initiative has collected additional reports by former Pittsfield Mayor Remo DelGallo about large PCB storage tanks leaking near Building 100 on East Street. (Exhibit D, video interviews with Ed Bates and Remo DelGallo, etc.). GE not only grossly underreported the amount of PCBs in the Housatonic River, it also grossly misinterpreted the contamination levels in the River. Plaintiffs-Intervenors believe GE's misrepresentations violated its responsibilities under the 1981 Consent Agreement under RCRA to disclose all past releases.

From the onset citizens organizations such as the Housatonic River Initiative urged the Massachusetts Department of Environmental Protection ("MADEP") and the United States Department of Environmental Protection ("USEPA") to institute an independent testing regime to more adequately determine the range and extent of PCB-contamination in the Housatonic River and Silver Lake, and to conduct a more thorough review of GE's sampling protocol. The Agencies resisted these citizens' efforts from 1992 to 1996. Finally, in 1996 the USEPA undertook independent sampling. This independent sampling effort, and greater oversight of GE's sampling regime, has revealed large areas of previously undiscovered contamination.

Due to a finding of major PCB concentrations in the banks of the Housatonic River located on GE's facility, GE was forced to clean up contaminated bank soil and river sediment in what has become known as the Building 68 Removal Action. During the 1997 Building 68 Removal of a 550-foot section of bank soil and river sediment, the public learned from The Berkshire Eagle that:

10/03/00 TUE 12:17 FAX

If GE's estimated average concentration of 1,550 parts per million for the sediments in the hot spot is even close, then at least 10 tons of pure PCBs were removed from the river bed off Building 68. That would represent more than half of the 39,000 pounds a GE consultant estimated was in the Housatonic River sediments above the Connecticut border in 1983. (Exhibit E, December 16, 1997 issue of The Berkshire Eagle).

For the reasons that follow, Plaintiffs Intervenorers are convinced that this Consent Decree fails to thoroughly address several major areas, and that several of its decisions fail to adequately protect either the public health and safety, or that of the environment.

3. The Remedial Decision For The 1/2 Mile of the Housatonic River from the GE Facility to Lyman Street - ("The 1/2 Mile Reach") - Will Not Adequately Prevent PCBs From Recontaminating The River And The Properties Of Plaintiffs Intervenorers In The Future.

Even though the Consent Decree has not been approved by the Court, the Agencies and GE are moving with haste to implement the Removal Action Plan for the first 1/2 Mile Reach of the Housatonic River. Before the Court has even had a chance to review and rule on the provisions of the Consent Decree, a major portion of this removal action will have been completed, and seriously inadequate precedents may have been established.

These precedents include a strategy based on limited testing, limited removal, major capping, and extensive landfilling without treatment. Extremely high levels of contaminated soils and sediments will be left unremediated and covered up by a largely untested geotextile-based capping regime. There will be no substantive reduction of toxic materials. Instead, these materials will be transported from the river and relocated to the Hill 78 and Building 71 landfills, a mere 50 yards from the Allendale elementary school. The Agencies maintain that the public has had ample opportunity to comment on the 1/2-Mile Reach Removal Plan. Plaintiffs-Intervenorers, through the Housatonic River Initiative (of which they are all members) and their technical consultant, Joel Loitherstein, submitted substantial written

10/03/00 TUE 12:18 FAX

comments in early June 1999 to GE's proposed Action Plan, yet it was only when the Agencies' responses were released to the public information repositories in November 1999 that they discovered the underlying reasons for the Agencies' decisions regarding the 1/2-Mile Reach.

EPA's response to their concerns is only found in EPA's "Responsiveness Summary for Allendale School Removal Action. 1/2 Mile Removal Action and Consolidation, October 1999" (Exhibit F):

Comment: Two commenters expressed concerns about the use of spatial averaging and also asked how EPA determined the cleanup levels for the sediments and bank soils.

Response: Sediments. EPA did not explicitly specify a cleanup level for PCBs in sediments nor did EPA approve the use of spatial averaging for the sediments in the 1/2-Mile Reach; rather a cleanup approach was used to determine the limits of excavation. **Based on the experience of the Building 68 Removal Area (a 550-foot section of the river located within the 1/2-Mile Reach), EPA determined that the complete removal of PCB-contaminated sediments in the 1/2-Mile Reach is not feasible.** For example, during the Building 68 cleanup, the sediments in some sections of the River were excavated to a depth of eight feet and PCB levels as high as 2,240 remained.

Therefore, EPA based its review of the limits of sediment excavation on the following criteria: removing a significant mass of PCB-contaminated sediments; reducing surficial PCB sediment levels to less than 1 ppm; excavating sediments to a sufficient depth to allow for the installation of an appropriate cap/backfill configuration that would effectively prevent the residual PCBs that remain in the underlying sediments from migrating up to the surface sediments or water column." (Exhibit-F, emphasis added)

This is the first time that Plaintiffs Intervenors and their organization, the Housatonic River Initiative, ("HRI") had heard so clearly that the most critical decisions regarding the Agencies' cleanup strategy for the 1/2-Mile Reach were determined by the experience of the Building 68 remediation. In HRI's extended public comments to the Consent Decree (Exhibit G), HRI examines the Building 68 experience in greater detail. Suffice it to say that there is reason to believe that both GE and the Agencies clearly underestimated the amount and depth of the contamination at the site.

10/03/00 TUE 12:18 FAX

The Building 68 chronology mimics Plaintiffs-Intervenors experience with every other aspect of this site. A 1968 GE spill that goes unreported until 1982. 14 years of regulatory inaction that leads to a sampling program in 1996. Remediation in 1997, and additional remediation in 1998, 30 years after the spill, that still leaves large amounts of contamination in place.

The underestimation of contamination led to an engineering plan that was ultimately unable to support dredging below 8 feet, and extremely high levels of contaminants were left unremediated. These remaining contaminants located within the GE property continue to leach into the Housatonic River and Pittsfield's groundwater, posing a threat to the properties of Plaintiffs Intervenors and all other owners of real estate properties located in the floodplain of the Housatonic River.

GE's difficult experience with the Building 68 Removal Action has, in effect, determined the limits of remedial action for the entire 1/2-Mile Reach. USEPA's analysis of the Building 68 Removal Action has affected all the subsequent decisions concerning the 1/2-Mile Reach, including the decision not to obtain PCB and Appendix IX+3 constituents samples in the river beyond a depth of 2.5 feet.

As the USEPA states on page 4-1 of Appendix F of the Consent Decree:

Recent sampling performed by the USEPA (August – October 1998) involved establishing 63 transects, approximately 50 feet apart, along the River in the 1/2-Mile Reach, and generally obtaining samples (when retrievable) from three locations along each transect at 6-inch depth intervals, to a maximum depth of 2.5 feet. Samples collected from this reach between 1981 and 1998 indicate the presence of PCBs in sediments ranging from less than 1 part per million (ppm) to 9,411 ppm." (Emphasis added)

10/03/00 TUE 12:19 FAX

This decision will leave extremely large quantities of PCBs untouched below the 2.5 feet level. And this strategic decision has led inevitably to the determination to employ an untested (under these circumstances, at least) multi-layered computer-designed cap system.

The engineering limitations of the Building 68 Removal, and discovery of an unexpected source, led to the decision to leave contaminated bank soils with PCB levels as high as 102,000 ppm at a depth of 6 to 8 feet deep and river sediments with PCB levels of 2,240 ppm at a depth of 8 feet.

The Building 68 Removal Action revealed the existence of an unanticipated source of heavier-than-water contaminated Dense Non-Aqueous Phase Liquid oil (DNAPL) which contains extremely high levels of contamination. The thick underground DNAPL plumes that exist throughout this site contain not only PCBs but other toxic contaminants, including chlorobenzene, benzene, trichloroethylene, methylene chloride as well as metals.

There are available a range of alternative remediation strategies, including the construction of a more extensive slurry ditch and pumping system deep enough to capture and drain the DNAPL plumes that continue to endanger the river system,² that would deal effectively with this DNAPL plane.

² There is certainly room enough on the extensive GE property which borders the 1/2-Mile Reach for such a drainage ditch and pumping system to ensure that the deep plumes heading to, and possibly traveling below, the river itself are immobilized and remediated. Installing such a system wherever possible would not only prevent any possible future recontamination but would enable the remediation efforts in the 1/2 Mile Reach to go deeper and remove greater quantities of contaminated sediment. GE has already constructed a slurry ditch 380 feet long by 30 feet deep to aid its efforts to recover oil from the massive plume in East Street Area 2.

10/03/00 TUE 12:19 FAX

Plaintiffs Intervenor's technical consultant, Joel Loitherstein of Loitherstein Environmental ("LEEI") has raised many questions about the Agencies decision to rely on a capping solution:

LEEI was not able to find other locations where a cap and armor has been placed beneath a river. The available literature refer to caps being placed beneath relatively calm surface waters such as harbors and lakes. There is a similar project being proposed in New York, but a pilot test is being performed before it is put in place.

It is the opinion of LEEI that these remedial decisions are based on entirely too little data, and that the data itself are highly questionable. Given GE's proposed plan to cap the remaining river sediment subsequent to excavation, we seriously question the benefit that such an exercise will have on the ecological systems and potential human receptors when compared to the disruption and uncertainties that the exercise will entail.

... It is also the opinion of LEEI that capping the sediment should be further evaluated as a remedial option before it is implemented over the entire 1/2-mile stretch. We have reviewed many articles on capping, including some cited in BBL's report ...

According to one study 'capping is likely to be used only in environments where the long-term integrity of the cap can be guaranteed. Typically this would mean low hydrodynamic energy environments such as harbors, estuaries and lake bottoms.' ... It is the opinion of LEEI that the Work Plan should also involve a pilot test of a high velocity and scouring area before the cap is implemented over the entire 1/2-mile reach. It is our opinion that, rather than a prediction of PCB flux based on computer models (Appendix G of BBL's report), that GE be required to obtain actual data on flux and PCB concentrations using seepage meters placed at key locations on the river bottom. These data could then be used to calibrate the model to make more accurate predictions of the cap's useful life. (Exhibit H)

Plaintiffs Intervenor's believe that the joint decision of the Agencies and GE to restrict removal of PCBs and other contaminants to a depth of 2 1/2 feet in the Housatonic River, coupled with their decision to employ an untested geotextile-based capping remedy will not adequately prevent PCBs from recontaminating the river and the properties of Plaintiffs Intervenor's in the future.

10/03/00 TUE 12:20 FAX

4. The Hill 78 and Building 71 Landfills Located Within The GE Property Will Continue To Contaminate Pittsfield's Groundwater, Endanger The Housatonic River, The Schoolchildren At The Allendale School, And Affect The Properties of Plaintiffs-Intervenors and All Other Owners of Real Properties Located In The Housatonic River Floodplain.

USEPA and MADEP are permitting GE to use two landfills located on the GE facility to dispose of PCB-contaminated soils and sediments. The Agencies' plan is to put PCB-contaminated material less than 50 ppm on top of an existing, unlined landfill on Hill 78, and to create a new landfill for higher-level contaminated materials above 50 ppm on the adjacent Building 71 Site.

These sites border an elementary school and a residential neighborhood. The Hill 78 landfill is 50 yards from the Allendale School.

Plaintiffs-Intervenors know from many Agency documents and the testimony of former GE employees and Pittsfield residents that the existing dump at Hill 78, a former ravine, was filled with extremely toxic materials, including barrels containing Pyranol, GE's PCB oil. Sampling has shown contamination at levels of 120,000 ppm in the soil. A 1991 investigation revealed that the groundwater in the vicinity of Hill 78 had concentrations of PCBs at 9 ppb and dioxins and furans (much more toxic even than PCBs) at 30 ppb. These dumps are located right across the street from a public elementary school, needlessly exposing schoolchildren to possible migration of contaminants. Several candidates for the Pittsfield City Council and the current Councilman representing this district raised public concern about the enlargement of these landfills, and expressed concern for the safety of the children. (Exhibit I.)

Plaintiffs-Intervenors believe that public health and safety will be unnecessarily threatened by the Agencies' decision to not only leave such high-level contamination in place at Hill 78 but to add to it and make more difficult any efforts that may prove necessary at a later

10/03/00 TUE 12:20 FAX

date to deal with potential problems from the presence of buried barrels of liquid PCBs, contaminated fullers earth, possible metals, solvents, VOCs, and SVOCs.

EPA Project Leader Bryan Olson's response at the May 18, 1999 public meeting to some of these concerns was that:

we have monitored this landfill ... for a fairly long time and we don't see any impacts from the landfill, going away from the landfill ... we're expecting that they're probably drums in that landfill, but we think that the solution will work no matter what's in the landfill.

Plaintiffs-Intervenors recognize and appreciate that the Agencies have set up a long-term monitoring program for this containment facility. But monitoring, unfortunately, will only confirm that migration has occurred; and that a problem exists.

Plaintiffs-Intervenors through HRI have conducted extensive research, and contacted other communities who have had serious problems with landfills that release contaminants. There are valid reasons to doubt the long-term ability of these proposed containment measures for both the Hill 78 and Building 71 landfills. First, it is necessary to reiterate that the Hill 78 landfill, the repository of PCBs in subsurface soils at an average concentration of 498 ppm and a maximum concentration of 120,000 ppm, has no base liner.

This is what other EPA scientists have said about landfills in the past:

There is good theoretical and empirical evidence that the hazardous constituents that are placed in land disposal facilities very likely will migrate from the facility into the broader environment. This may occur several years, even many decades, after placement of the waste in the facility, but data and scientific prediction indicate that, in most cases, even with the application of best available land disposal technology, it will occur eventually. (Federal Register, Feb. 5, 1981, pg. 11128).

Eventually liners will either degrade, tear, or crack and will allow liquids to migrate out of the unit. (Federal Register, July 26, 1982, Pg. 32284).

10/03/00 TUE 12:20 FAX

Since disposing of hazardous wastes in or on the land inevitably results in the release of hazardous constituents to the environment at some time, any land disposal facility creates some risk. (Federal Register, May 26, 1981, Pg. 28315).

Given EPA's own admission of the many problems that characterize landfill liners, the inability of landfills to guarantee the long-term isolation of these toxic chemicals, and the emphasis CERCLA places on alternative and permanent solutions, Plaintiffs Intervenor believe that these wastes should be treated and remind the Agencies of their stated commitment to the treatment option.

According to the "Corrective Action for Solid Waste Management Units at Hazardous Management Facilities; Proposed Rule (Subpart S)" four standards need to be used in evaluating Corrective Measure technologies:

- 1) overall protection of human health and the environment;
 - 2) ability of the technology to attain media cleanup standards;
 - 3) the ability of the technology to control the sources of releases; and,
 - 4) the technology's compliance with standards for management of wastes.
- If two or more technologies meet the evaluation standards then there are five evaluation decision factors which must be considered. The five evaluation decision factors are:
- 1) ability of the remedy to provide long-term reliability and effectiveness;
 - 2) ability to reduce the toxicity, mobility, or volume of wastes;
 - 3) short-term effectiveness;
 - 4) ability to implement; and,
 - 5) cost.

1. In accordance with the Permit and the proposed Subpart S regulations, **economic considerations shall not be the sole standard or criterion applied to any technology in the Corrective Measures evaluation process.** (Federal Register, July 27, 1990)(added emphasis.)

While the decisions to enlarge the Hill 78 Consolidation Area, and construct the Building 71, and possibly the additional New York Avenue/Merrill Road, Consolidation Areas, meet the above criteria for short-term effectiveness, ability to implement, and cost, it certainly

10/03/00 TUE 12:21 FAX

fails the criteria for reducing the volume of waste. And there is reliable testimony and good reason to doubt that this decision provides either long-term reliability or effectiveness.

Plaintiffs-Intervenors believe that there is a far more protective alternative: treatment. There are several treatment methods — thermal desorption, for example — which substantially reduce the volume of PCB-contaminated materials by heating the sediments and soils. What results from the thermal desorption process is large amounts of clean, sterile soil and very small and concentrated amounts of liquid PCBs, which are easily stored and isolated. The clean soil can often be recycled and used.

The Agencies have given Plaintiffs Intervenors a cost estimate based on their experience with the remediation at the Loring Air Force Base. This experience indicates that dumping on site, or very close to the site, was estimated to cost \$30 a ton, as opposed to \$300 a ton or more to treat it.

GE, in its revised "Removal Action Work Plan - Upper 1/2 Mile Reach of Housatonic," estimates that it will remove approximately 12,740 cubic yards of contaminated soil and sediment. One cubic yard is equal to a ton and a half; 12,740 cubic yards equals 19,110 tons. Multiplied by \$300, the estimated cost of treating the soils and sediments of the 1/2 Mile Reach, is \$5,733,000. Assuming that the \$300 a ton is a low estimate. If treatment costs average \$400 a ton, the added expense for treatment comes to \$7,644,000. If the treatment costs average \$500 a ton, the added expense for treatment comes to \$9,555,000.

The remediation decisions negotiated in the Consent Decree also encompass the next mile and a half of contaminated sediments and bank soils, the contaminated soil from the Allendale School, and anticipated contaminated soil from the Newell Street properties. GE arrives at a total estimate in its June 1999 "Detailed Work Plan for On-Plant Consolidation Areas:"

10/03/00 TUE 12:21 FAX

Using: 1) the information available for each RAA; 2) GE's understanding of the response action requirements established in the sediments; 3) information provided by the USEPA; and 4) several assumptions (summarized below), the volume of materials potentially subject to on-plant consolidation is estimated to be approximately 230,000 cubic yards (cy). Of this total, it is currently estimated that approximately half of the materials would be regulated under TSCA, while the other half would be considered non-TSCA material containing less than 50 ppm PCBs. (Page 2-2, Appendix E to Consent Decree, Volume II, Annex 1)

Using the estimate of 230,000 cubic yards, brings the total volume of contaminated soil and sediments subject to possible treatment up to 345,000 tons. At \$300 a ton, the costs of treating 345,000 tons equals \$103,500,000. At \$400 a ton, the costs rise to \$138,000,000. At \$500 a ton, the costs rise to \$172,500,000.

Accordingly, there is a range of \$103 million to \$172 million dollars to treat all this waste rather than bury it across from the Allendale School. The additional \$103 to \$172 million to ensure a permanent remedial solution can, and should be, met here given the enormous profits General Electric made with its Power Transformer and Capacitor divisions in Pittsfield, and its continuing status as one of the world's most profitable corporations.

According to the Berkshire Eagle of April 9, 1999, Jack Welch, CEO of General Electric doubled his annual earnings in 1998 to \$83.6 million dollars. According to a March 17, 1999 press release from the United Electrical Workers, CEO Jack Welch's total compensation package for 1998 equaled \$97 million dollars, averaging about \$50,000 an hour. Clearly, GE has the financial wherewithal to treat this contamination. (Exhibit J) For less than what Jack Welch will receive for two years' work, GE can treat the total 230,000 cubic yards of contaminated sediments, and bank soils from two miles of the Housatonic River, the Allendale School and the Newell Street area.

10/03/00 TUE 12:22 FAX

The Berkshire community has endured irreparable damage because GE allowed PCBs and other toxics to escape its industrial facility and move to the Housatonic River, Silver Lake, adjacent neighborhoods and other towns. For an additional \$103 to \$172 million GE can treat this waste, and almost completely reduce its volume and toxicity. Given the financial price the Berkshire Community has paid, it is incumbent upon the Agencies to not allow this additional cost to stand in the way of the most thorough cleanup.

Plaintiffs Intervenors once more refer to CERCLA Section 9621(b):

In making such assessment, the President shall specifically address the long-term effectiveness of various alternatives. In assessing alternative remedies, the President shall, at a minimum, take into account: ... the long-term uncertainties associated with land disposal; ... the persistence, toxicity, mobility, and propensity to bioaccumulate of such hazardous substances and their constituents; ... long-term maintenance costs; ... the potential for future remedial costs if the alternate remediate action were to fail; and ... **The President shall select a remedial action that is protective of human health and the environment, that is cost effective, and that utilizes permanent solutions and alternative treatment technologies or resource recovery technologies to maximum extent practicable ... (42 USC 9621(b)) (Emphasis added)**

Plaintiffs Intervenors believe that treatment will greatly reduce the large volume of toxic contaminants. By destroying the contamination, rather than burying it, the treatment option better provides the CERCLA standard cited above of "long-term reliability and effectiveness." It better meets the CERCLA standard cited above of "reducing the toxicity, mobility, or volume of wastes." It clearly eliminates the CERCLA concern cited above of "the long-term uncertainties associated with land disposal." It clearly eliminates the CERCLA concerns cited above of "long-term maintenance costs" and "the potential for future remedial costs if the alternate remediate action were to fail." (42 USC 9621(b))

Treatment is not only effective in the short-term, it is a far more effective option for the long-term. It certainly protects public health and the environment. In addition, GE has

10/03/00 TUE 12:22 FAX

proven its ability to implement the treatment option in its remediation of the Rose Superfund site in Lanesboro, Massachusetts.

Similarly, GE Canada is utilizing thermal desorption treatment in Canada.

Finally, Plaintiffs Intervenor would like to bring to the Court's attention the USEPA's remediation decision for the 2-acre PCB-contaminated site at Fletcher Paint Works and Storage in Milford, New Hampshire, EPA Region 1 site ID# NHD001079649. According to a March 12, 1999 EPA press release:

EPA signed the Record of Decision (ROD) on September 30, 1998 and called for excavation and use of thermal treatment as was proposed in the 1996 plan. (Exhibit 15)

Plaintiffs Intervenor believe that the advantages of cost, and the ability to implement, are clearly outweighed by the limitations of landfilling. Plaintiffs Intervenor call for the use of thermal treatment.

5. The Current Plan For Remediation of Silver Lake Will Render This Body Of Water Useless, A Continuing Threat To The Housatonic River, And A Danger of PCB Recontamination On The Properties Of Plaintiff Intervenor and Other Flood Plain Residents.

One of the greatest failures of the Consent Decree lies with the Agencies' decision not to demand the removal of the highly-contaminated sediments from the bottom of Silver Lake. Silver Lake is a beautiful 26-acre lake in the heart of Pittsfield, adjacent to the soon-to-be redeveloped former GE plant. Older Pittsfield residents remember the days when they swam in Silver Lake in the summer, and skated on it in the winter. Of more recent times, they may instead recall that the lake would not freeze and caught fire.

A truly remediated and renewed Silver Lake will once again attract Pittsfield residents in great numbers. Clearly, a clean, fishable, swimmable lake can serve as the

10/03/00 TUE 12:23 FAX

centerpiece to the commercial renaissance envisioned by the Pittsfield Economic Development Authority (PEDA).

Attachment K to the Statement of Work (SOW) for Removal Actions Outside the River details the nature of the remedial solution intended for Silver Lake:

b.(i) "This cap shall include an isolation layer positioned directly above the sediments over the entire lake bottom. This layer shall consist of silty sand, with a presumptive thickness of 10 inches, if geotextile is placed between the sediments and the cap (or 12 inches, installed in two six-inch lifts, if a geotextile is not placed between the sediments and the cap), an organic carbon content of 0.5 percent (as total organic carbon) and concentrations of PCBs at non-detectable levels and other constituents at background levels as approved by EPA. (The presumptive thickness of the cap is based on use of a 6-inch isolation layer to control PCB migration from the underlying sediments into the surface water of the lake, plus an additional 4 inches of silty sand if geotextile is not used), to account for uncertainties associated with bioturbation." Appendix E, Volume 1 to Consent Decree. (Emphasis added).

Thus, the Agencies' solution to Silver Lake is to allow GE to drop silty sand barge 30 feet down from a to create a sand cover of twelve inches over contaminated sediments with levels as high as 20,700 ppm. There will be no removal of highly contaminated lake sediments and there will be no treatment of these sediments. The solution is just a silty sand cover.

Even GE, five years ago, publicly expressed doubts about such a capping strategy. At that time, GE was arguing that natural recovery, the re-silting of sediment (a do-nothing strategy), would eventually remove the threat posed by Silver Lake sediments.

GE argued in its March 1995 revised "Proposal for the Preliminary Investigation of Corrective Measures for Housatonic River and Silver Lake Sediment (PICM)" that there are potential problems with the so-called "armoring" scenario in waters as deep as Silver Lake:

The armor layers are placed either from a barge, from a floating platform, or from the banks of the river or lake. The depth of the water affects the ability to

10/03/00 TUE 12:24 FAX

effectively place the armoring. In shallow water depths, the armoring can be placed with more control, reducing sediment resuspension. However, as discovered in the New Bedford Harbor Pilot Study described below, armoring is difficult to place effectively in deeper waters (depths greater than approximately 10 feet). (Exhibit L - PICM Page 2-3) (Emphasis added)

On occasion, placement of armoring at depth is difficult to control and can result in mixing of contaminated sediment with the clean cap material. In the New Bedford Harbor Pilot Study, one to three feet of clean sediment was placed on sediment contaminated with PCBs in an aquatic disposal area. Four months after capping, sediment cores taken from the capped area and analyzed for PCBs indicated that the capping effort was not successful [Herbich (undated) and USACE 1990b]. This was due to the method of placement and the fact that the site was in deep water, resulting in little control of placement of the capping material. This site is in relatively deep water, and thus, is generally applicable only to the deeper areas of Silver Lake and Woods Pond." (Exhibit L - PICM Page 2-5) (Emphasis added).

It is reasonable to expect GE to truly clean Silver Lake and for the Agencies to insist that it do so. For more than 50 years PCBs, heavy metals, and other contaminants flowed constantly from the GE plant to poison a prized community resource.

In its "Supplemental Phase II/RCRA Facility Investigation Report for Housatonic River and Silver Lake (Bouck & Lee, Inc., January 1996)" GE estimated the following approximate volumes for sediments and bank soils:

Approximate Volumes (cubic yards) - Silver Lake
Containing Greater than 1 ppm PCBs: 175,000
Containing Greater than 10 ppm PCBs: 140,000
Containing Greater than 50 ppm PCBs: 70,000
Containing Greater than 100 ppm PCBs: 60,000
Containing Greater than 500 ppm PCBs: 46,000
(Exhibit M, Page 3-46)

5.5 Estimation of Volumes of Impacted Floodplain Soils

Approximate Volume (cubic yards) Silver Lake
Containing Greater than 1 ppm PCBs: 5,000
Containing Greater than 10 ppm PCBs: 3,200
Containing Greater than 50 ppm PCBs: 800
(Exhibit 17, Page 5-34)

10/03/00 TUE 12:24 FAX

If GE were to remove PCB-contaminated sediments above 10 ppm from Silver Lake, the approximate volume involved would be 316,000 cubic yards. 316,000 cubic yards is 474,000 tons.

Let's use the high end estimate of what it costs to treat this contaminated sediment: 474,000 tons at \$500 a ton comes to \$237,000,000. For \$237 million dollars Pittsfield could have a truly clean, fishable, swimmable lake. At a time when communities are investigating hundreds of millions for sports facilities, \$237 million is not a large amount of money to restore and rehabilitate a 26 acre gem.

While Plaintiffs Intervenor support the Agencies' decision to require a spatial average of 2 ppm in the bank soils of residential properties abutting Silver Lake, Plaintiffs Intervenor are disappointed that a similar average is not required in the non-residential properties abutting the Lake.

Unlike other areas of the site, such as the more industrial 1/2-Mile Reach where public access has not been easy in recent years, the city can reasonably anticipate large numbers of people taking advantage of Silver Lake: walkers, picnickers, teenagers, men and women fishing.

As Figure 2-25 of the Statement of Work for Removal Actions Outside the River indicates, (Appendix E, Volume 1 to Consent Decree), Recreational Areas 1 through 5 circle Silver Lake, and provide the best access. If, in fact, the City of Pittsfield invests time and energy in encouraging a renewed public appreciation of Silver Lake, these areas will experience great use. Why allow levels as high as 10 ppm when it is likely that children will be active in this

10/03/00 TUE 12:25 FAX

area? Plaintiffs Intervenor urge the Agencies to find some middle ground between their residential and normal recreational scenarios in the Silver Lake Removal Area.

At the very least, Plaintiffs Intervenor request a pilot project for the Silver Lake remediation to see whether or not extensive removal of contaminated sediments is possible. If the Agencies are serious about their desire to restore Silver Lake so that people can fish and swim in it, it is vital to restore public confidence. In any event, a clean-up scenario, limited to dropping twelve inches of sand from a barge thirty feet down to cover over massively contaminated sediments, is inadequate. Thus, the Agencies' decision regarding Silver Lake fails to meet most of the strictures of CERCLA Section 9621(b) previously cited.

6. The PCB Contamination Of The West Branch Of The Housatonic River Has Not Been Addressed In The Consent Decree, Rendering Any PCB Removal From The Confluence Of The West And East Branches An Exercise In Futility And Continuing The Pollution With PCBs Of The Properties Of Those Plaintiffs Intervenor Who Own Real Properties Down Stream From The Confluence of The Two Rivers.

The Dorothy Amos Park and the King Street Dump both border the West Branch of the River. Both GE and the Agencies insisted for years that PCB contamination was confined to the East Branch. Information from former GE employees and local waste haulers, which Plaintiffs Intervenor presented to the Agencies, was to the contrary. Finally, the Agencies began two years ago to do their own independent testing in the Housatonic. As part of this testing program, the Agencies sampled the confluence of the West and East branches and adjacent to Dorothy Amos Park on the West Branch. As the December 9, 1999 front page of The Berkshire Eagle revealed: "PCB 'hot spot' found near West Street park". (Exhibit N). The Agencies' initial testing found levels as high as 7,630 ppm. Unfortunately, testing was limited to 11 locations and went no deeper than two and a half feet.

10/03/00 TUE 12:25 FAX

Because the Agencies believed the West Branch had not been contaminated, it was not included in the provisions of the Consent Decree. The plan was to clean downstream sections of the river even though all sources of upstream contamination have yet to be identified and remediated. MADEP, as of its December 8, 1999 letter to GE, has asked GE to prepare a Scope of Work (SOW) that would define the nature and extent of contamination in the West Branch "from upstream of Dorothy Amos Park to the confluence of the East and West Branches" and delineate "the presence of the PCB sediment hot spot at a location in the West Branch adjacent to Dorothy Amos Park ..." (Exhibit 0.)

Plaintiffs Intervenor believe that the Agencies must insist on a testing program that includes substantial sampling of the West Branch adjacent to the King Street Dump and that all sampling extends vertically until they find levels at non-detect. As everyone learned from the Building 68 Remediation, substantial levels of contamination can exist at great depth. The former scrap yard operation at what is now Dorothy Amos Park may, in fact, have land filled PCB-contaminated liquids.

7. The Consent Decree Fails To Address The Fact That GE Gave Away Contaminated Wood From Its Transformers To The Citizens Of Pittsfield And Some Businesses And Possibly Homes Were Built With PCB-Contaminated Wood.

Based on information from former GE employees, Plaintiffs Intervenor through their citizen organization, HRI, raised the issue in 1998 of possible contamination problems stemming from the distribution of PCB-oil soaked wood throughout the Berkshire community. This wood lined the insides of large power transformers. During the life of the transformer, the wood absorbed PCB-oil. GE made this wood available in much the way it handled the PCB-contaminated fill that is now being cleaned up in homes throughout Pittsfield. Plaintiffs

10/03/00 TUE 12:26 FAX

Intervenors are aware of at least two commercial properties on Newell Street that contain GE's contaminated wood: Stracuzzi Contracting and Ravin Auto Body, who have notified MADEP and USEPA of these facts without any testing or response from the Agencies. Plaintiffs Intervenors would require the Agencies to develop a public information campaign, including the use of radio, television, and print media, to alert the public to the possible dangers of using contaminated wood. In addition, Plaintiff Intervenors would require the Agencies to interview former and present GE employees to learn more about the wood giveaway program.

8. The Consent Decree Fails To Address The Fact That Some Commercial Buildings In Seriously Contaminated Areas Along Newell Street Have Earth Floors Contaminated With PCBs Presenting A Serious Danger To Their Owners and Their Workers.

While there has been a major effort to remediate residential properties that have received PCB-contaminated fill to an averaged 2 ppm, there has been no similar effort to identify or remediate properties built upon contaminated fill, which have exposed soil floors. Stracuzzi Contracting on Newell Street is just such a property, and the owner and his employees are continually exposed to possible PCB-contaminated soils.

9. The Compromise Reached Between GE And The Agencies Which Made The Consent Decree Possible Was That Large Areas Of Pittsfield Encompassing Properties of Along Newell Street Do Not Get Cleaned-Up To Massachusetts Default Standards Rendering These Properties Worthless Which Represents A Regulatory Taking Of Those Properties.

In its May 26, 1998 "Combined Action and EE/CA Approval Memorandum," the USEPA lists these former oxbows as Potential Sources of PCBs to the Housatonic River:

6. Heavily contaminated soils in the banks of the Housatonic River including the filled in portions of oxbows A through I. GE has documented high levels of PCBs in contaminated soils in the riverbanks in the subject area, especially in the former oxbows. ... In addition, PCBs have been detected in former oxbow soils in concentrations as high as 290,000 ppm (both at Lyman Street, sampling location LS-

10/03/00 TUE 12:26 FAX

11 and Newell Street I, sampling location QP-9). The contaminated bank soils pose a threat of release of PCBs into the Housatonic River via erosion and storm runoff." (Appendix B of the Consent Decree, pp. 7-9).

In the Action Memorandum for Removal Action Outside the River at the GE-Housatonic River Site, Appendix D, the Agencies state:

In parts or all of the Unkamet Brook Area, Oxbows A and C, Oxbows J and K, ... access is unrestricted and the land use is residential, recreational, or commercial. Therefore, the potential exists for residents, recreational users, workers, and trespassers to come into contact with contaminated soil. Direct contact with contaminated surficial soil could result in the ingestion, inhalation and/or dermal absorption of hazardous substances. In addition, any disturbance of subsurface soils, which is currently not prohibited, could expose people to contaminated subsurface soils.

Other areas of the Site, such as Newell Street I, East Street Area I and portions of the Lyman Street Area, are non-GE owned commercial/industrial properties. Access in many of these areas is not restricted. Therefore, the potential exists for workers, customers, and trespassers to come in contact with contaminated surface soils. Also, any disturbance of subsurface soils (e.g., for building expansion, installation of fence posts, regrading of parking areas, repaving, etc.) could result in the uncovering and exposure of contaminated soils. (Appendix D of the Consent Decree, Pg. 24).

Section IX 23 e. of the Consent Decree sets the clean-up standards for these areas.

It allows GE to select one of three options for determining spatial averaging of contamination for the top foot of soil at a property:

consideration of the overall property as an averaging area ... (ii) establishment of averaging areas which do not exceed 1.0 acre for GE-owned industrial portions of the GE Plant Area. 0.5 acre for other commercial/industrial properties or recreational properties, or 0.25 acre for residential properties ... (iii) proposal of other specific averaging areas to EPA for approval.

If GE selects the first option, it must:

remove and replace all soils in the top foot in unpaved portions of such property or area in which PCBs have been detected in excess of the following NTE concentrations: 125 ppm at a commercial/industrial property or area; 50 ppm at a recreational property or area; or 10 ppm at a residential property. (Pp. 116-117, Consent Decree)

10/03/00 TUE 12:27 FAX

Plaintiffs Intervenor urge a downward revision of these allowable not-to exceed (NTE) concentrations for Removal Actions Outside the River for the top foot of soil: current levels of 125 ppm at commercial/industrial properties; 50 ppm at recreational properties; and 10 ppm at residential properties should all be lowered.

Appendix E, Volume I, provides further details. For GE-owned commercial/industrial properties in the Former Oxbow Areas, or properties for which an Environmental Restriction Easement (ERE) has been obtained, cleanup levels are as follows: 0 to 1 foot, a spatial average of less than 25 ppm; 1 to 6 feet, less than 200 ppm; and if averaged levels at 0 to 15 feet, incorporating anticipated response actions, will exceed 100 ppm, then GE shall install an engineered barrier. For properties where an ERE cannot be obtained, cleanup levels are as follows: 0 to 1 foot, a spatial average of less than 25 ppm; if the spatial average, after incorporating anticipated response actions, will exceed 25 ppm at 0 to 3 feet, then GE shall remove and replace soils to achieve a less than 25 ppm average; from 1 to 6 feet, after incorporating anticipated response actions, less than 200 ppm; and if averaged levels at 0 to 15 feet, incorporating anticipated response actions, will exceed 100 ppm, then GE shall install an engineered barrier. (Appendix E to Consent Decree, Volume I, Pg. 50).

For recreational properties within the Former Oxbows:

if the spatial average PCB concentration exceeds 10 ppm in the top foot or 15 ppm in the 1- to 3-foot depth increment, GE shall remove and replace soils as necessary to achieve spatial average PCB concentrations at or below those levels ... GE shall then calculate the spatial average PCB concentration for the 0- to 15-foot depth increment ... If that spatial average PCB concentration exceeds 100 ppm, GE shall install an engineered barrier ...". (Appendix E to Consent Decree, Volume I, Pg. 51).

Plaintiffs Intervenor do not believe that these decisions fully protect public health or the environment. GE and the Agencies arrived at an averaged cleanup level of 2 ppm for

10/03/00 TUE 12:27 FAX

residential fill properties. While Plaintiffs Intervenor do not challenge that there is some difference between 24 hour a day residential exposure and less constant occupational or recreational exposure, Plaintiffs Intervenor do believe leaving PCB contamination at levels up to 25 ppm in the top foot in commercial areas like Newell Street fully protects public health.

Newell Street is a perfect example of an area that transcends simple categorization. The same area is home to the workers and management of Moldmaster Engineering, the members of the Italian American Club, an active social club, and borders many homes.

Similarly, a sampling and remediation regime which allows averaging areas of half an acre does not adequately serve to either discover or remove potential hot spots.

Finally, Plaintiffs Intervenor do not believe that a remediation strategy which calls for an engineered barrier when and if high levels of contamination are found at depth is an adequate solution to the potential dangers of buried barrels, new-found potential plumes and free product in the oxbows. Vincent Stracuzzi recently unearthed GE electrical parts eight feet beneath the surface of his commercial property, directly adjacent to his building. (Exhibit D, Video Interviews).

Former GE workers have spoken often of buried barrels, and yet to be discovered GE dumpsites. Only a more comprehensive testing regime in the Former Oxbows and a commitment to remove all high level contaminants at depth can adequately protect the public health for years to come and ensure that the Housatonic River will not be recontaminated.

Recent experience reveals that the Agencies and GE have yet to detect all possible sources of contamination within the Former Oxbow areas. For several years Plaintiffs Intervenor have been questioning the reliability of GE's demarcation of the thick heavily

10/03/00 TUE 12:27 FAX

contaminated DNAPL and LNAPL plumes. For several years they questioned whether or not it was possible that the plumes had migrated below and to the other side of the Housatonic River, and were assured that this had not happened. The recent discovery of a new plume in the Newell Street area reveals that their concerns are well-founded.

According to Technical Attachment H of Appendix E, Groundwater/NAPL Monitoring, Assessment, and Response Programs, GE recovered 1,750 gallons of LNAPL and 600 gallons of DNAPL from 1990 to March 1999 from the Lyman Street Area, and 700 gallons of LNAPL from 1991 to the present in East Street Area 1. This new plume has already greatly exceeded those outputs. Hopefully it is far less extensive than the large plume at East Street Area 2, from which, since the 1970s, GE has removed 800,000 gallons of NAPL.

Additionally, the Consent Decree calls for GE to either:

- a) obtain an ERE from owners of contaminated properties in Pittsfield for a value equivalent to 18% of the most recent assessed value of the property, in which case the property owners will be forever unable to dig, put foundations in or in any way alter more than the first foot of soil from their properties. (Consent Decree, Section 60, Pg. 191)

Those properties for which an ERE has been obtained will be cleaned to the following standards:

GE shall calculate the existing spatial average PCB concentration for the 0- to 1-foot depth increment for (a) the unpaved portion of each averaging area, and (b) the paved portion of each averaging area. If the spatial average PCB concentration in the unpaved portion of such area exceeds 25 ppm, GE shall remove and replace soils as necessary to achieve a spatial average PCB concentration of 25 ppm or below in the top foot. ...

GE shall also calculate the existing spatial average PCB concentration for the 1- to 6-foot depth increment at each such property (considering the paved and unpaved portions together). If that spatial average PCB concentration exceeds 200 ppm, GE shall remove and replace soils as necessary to achieve a spatial average of 200 ppm or below in the 1- to 6-foot depth increment.

10/03/00 TUE 12:28 FAX

GE shall then calculate the spatial average for the 0- to 15-foot depth increment (or to whatever depth sampling data exist, if less than 15 feet), incorporating the anticipated performance of any response actions for the 0- to 1-foot and 1- to 6-foot depth increments. If that spatial average PCB concentration exceeds 100 ppm, GE shall install an engineered barrier in accordance with the specifications for such barriers in Attachment G to this SOW. (Appendix E to Consent Decree, Volume I, Pp. 48-49).

Or:

(b) clean up those properties for which an ERE has not been obtained to the following standards:

GE shall initially calculate a spatial average PCB concentration for the 0- to 1-foot depth increment at each averaging area at the property. If the spatial average PCB concentration exceeds 25 ppm in this depth increment, GE shall remove and replace soils as necessary to achieve a spatial average PCB concentration at or below 25 ppm for this increment at each such area. (In addition, if GE selected the option described in Standard #3.a, GE shall remove all soils containing PCB concentrations greater than 125 ppm from the top foot of unpaved portions of such property.) GE shall then calculate the spatial average PCB concentration for the 0- to 3-foot depth increment at each averaging area (incorporating the anticipated performance of any response actions for the 0- to 1-foot depth increment). If that spatial average exceeds 25 ppm, GE shall remove and replace soils as necessary to achieve a spatial average PCB concentration at or below 25 ppm for the 0- to 3-foot depth increment. ... If the resulting spatial average concentration exceeds 200 ppm in the 1- to 6-foot depth increment, GE shall remove and replace soils as necessary to achieve that spatial average concentration. Finally, GE shall calculate the spatial average PCB concentration for the 0- to 15-foot depth increment (or to whatever depth sampling data exist, if less than 15 feet), incorporating the anticipated performance of any response actions for the uppermost 6 feet. If that spatial average PCB concentration exceeds 100 ppm, GE shall install an engineered barrier in accordance with the specifications for such barriers in Attachment G to this SOW ... (Appendix E to Consent Decree, Volume I, Pp. 49-50).

The Agencies, in either case, are setting clean-up standards that leaves substantial levels of contamination in place: up to 25 ppm in the top foot, and 200 ppm from 1 to 6 feet.

And should higher levels appear at depth, an engineered barrier will be installed.

Some of the affected Newell Street properties, currently used for commercial purposes, are zoned for residential use, use as restaurants, old age homes, hospitals and many other uses by right. In

10/03/00 TUE 12:28 FAX

return for payment of 18% of the total value of the most recent assessed value, the affected property owner who agrees to an ERE agrees to restrict future use, abandoning these other uses, such as residential, day care and educational, community center for children etc., and agrees not to dig, excavate, or construct buildings or structures.

Those property owners who refuse to agree to an ERE receive no financial compensation from GE, who caused their property to be contaminated and devalued, and will continue to own property with levels as high as 25 ppm in the top foot. These properties are known to be contaminated and several affected property owners have been unable to sell these properties or receive loans for improvements to these properties.

GE has removed its PCB contamination from approximately 60 homes to an averaged level of 2 ppm.

Unless GE and the Agencies clean these properties to the standards for which they can used, they will continue to render these properties worthless. Plaintiffs Intervenor believe that the Agencies' actions in refusing to enforce a clean-up of these properties for uses they have by right, constitutes a violation of the Fifth Amendment of the United States. These property owners were not allowed to participate in any of the negotiations leading to these decisions of the Consent Decree: either to the figure arrived at of 18% of assessed value, or the clean-up levels their properties will be cleaned to. The decision on the part of the Agencies to exclude these property owners, and subject them to the aforementioned provisions of the Consent Decree violates the Due Process Clause of the Fifth Amendment of the United States.

10/03/00 TUE 12:29 FAX

10. Pittsfield's Groundwater Will Remain Forever Unusable Due To Its Contamination With PCBs Under The Terms Of The Consent Decree

Appendix C of the Consent Decree gives a sense of how compromised Pittsfield's groundwater has become. Within Groundwater Management Removal Action Area #1 (GMA #1), which includes the GE Plant, East Street Areas 1 and 2, Newell Street I and II and the Silver Lake, the groundwater contains:

PCBs in levels as high as 51,600 ppb (unfiltered) and 420 ppb (filtered) in the Lyman Street Area and 3,700 ppb in unfiltered samples and 770 ppb in filtered samples along the east edge of Silver Lake ... Newell Street Area II: DNAPL that contains up to 388,500 ppm PCBs, 430,000 ppm 1,2,4- trichlorobenzene ...

At the Hill 78 and Building 71 areas:

PCBs have been detected in unfiltered groundwater in concentrations as high as 960 ppb. Non-PCB hazardous substances ... at the following maximum concentrations: chlorobenzene (36,000 ppb-estimated), ... trichloroethene (320,000 ppb) ... (Appendix C of Consent Decree, pp. 17-20).

The August 4, 1999 Request for Removal Actions Outside the River at the GE-Housatonic River Site Action Memo, Appendix D of the Consent Decree states:

The groundwater at the Site discharges to either Unkamet Brook, Silver Lake or the Housatonic River. Currently, control of the groundwater discharge to these surface waters consists mainly of groundwater extraction and treatment in support of preventing the migration of NAPLs. At a majority of the groundwater/surface water interface, there is no hydraulic control to prevent discharge to the surface water. Therefore, there is a potential threat of release of these hazardous substances to surface waters (i.e., sensitive ecosystems). Part of the proposed actions contained in this Action Memorandum are procedures to further characterize the groundwater contamination, the magnitude of the threat to the surface waters, and if necessary, to conduct additional response actions. (Appendix D of Consent Decree, Pp. 27-28).

The Agencies seem to have made the decision that Pittsfield's groundwater has been so thoroughly contaminated by GE's PCBs and other toxins that it will never serve as a source for drinking water. Therefore, their remediation decisions at the GE plant, East Street

10/03/00 TUE 12:29 FAX

Area 1 and 2, the first two miles of the Housatonic River, Silver Lake, the Oxbows, etc. consist of limited removal/capping scenarios rather than complete removal. The Agencies also believe that for now the City has sufficient alternate sources of water so that it won't have to tap this groundwater.

Let's review some recent history as regards Pittsfield's groundwater. Concerned about future water needs in the early 1970s, the City of Pittsfield took land in Windsor for a reservoir. During a court battle, when this supply was in jeopardy, the city was assured by consultants that even if the court ruled against them, the city had plenty of usable groundwater available in the southeastern quadrant of the city.

In 1974, the Vincent property on East Street, not far from GE and the Housatonic River and 2,000 feet from the old city landfill in that section of town, was identified as one of the best sources for water. In 1977, the city was informed by the state that PCBs were found in the groundwater at the Vincent property. Afterwards, the City of Pittsfield in the late 1970s and the 1980s was so concerned about its limited water reserves, that it began a testing program to search for usable groundwater. During a drought in 1981, the City was considering pumping water from Lake Onota.

The city's concern for future water sources was quite clear. Based on that concern, the Berkshire Regional Planning Commission sought in 1983 a \$250,000 state grant for expanded monitoring to determine the extent of contamination under the Vincent property on East Street, and for a possible clean-up program. The application was rejected because the state felt that, given the PCB contamination, the site was a poor choice for potential drinking water, and that Pittsfield was competing against towns and cities forced to close already existing water supplies because of contamination.

10/03/00 TUE 12:30 FAX

Former Pittsfield Mayor Remo DelGallo has spoken about the city's concern for an increased water supply and the city's widespread concern with contaminated groundwater. (Exhibit D- video interview with Remo DelGallo)

While Plaintiffs Intervenor appreciate the cost considerations involved in thorough removal scenarios rather than partial removal and capping, Plaintiffs intervenors nevertheless questions the wisdom and long-term efficacy of a policy that abandons forever a community's ability to utilize its groundwater to meet its growing needs for water in the years to come.

Plaintiffs Intervenor therefore suggests an expansion of the provisions of the Consent Decree regarding groundwater and NAPL. Not only should GE implement an increased monitoring and assessment program but it should immediately expand its Groundwater Treatment Program to begin a systematic and comprehensive treatment regime of all Pittsfield's PCB-contaminated ground water throughout the entirety of the GE/Pittsfield site, including those areas endangered by PCB-contaminated fill that was transported from the GE facility.

11. The Natural Resources Damage Award Is Grossly Inadequate And Represents A Fraction of the Defendant's Actual Liability For Natural Resource Damages.

Plaintiffs-Intervenor challenge the provisions of Section XXII of this Consent Decree. They believe that the amount of money negotiated by the Agencies and the Trustees and the Settling Defendant for Natural Resource Damages (NRD) fails to adequately reimburse the nation, the Commonwealth of Massachusetts, the State of Connecticut and the people who live within the reach of the Housatonic River and Silver Lake for the almost 70 year loss of these resources and future losses until full restoration, and for the damages to them.

10/03/00 TUE 12:30 FAX

Unlike the typical CERCLA process, the expedited nature of these negotiations created a pressing need for the Natural Resource Trustee to quicken the process of assembling the Natural Resource Damage Assessment. Plaintiffs Intervenor believe that, as a result of this time crush, that the Trustees and their contractors, Industrial Economics, Incorporated of Cambridge, Massachusetts failed to adequately quantify lost availability to the public of the Housatonic River and Silver Lake, and damages to these natural resources, and therefore underestimated the natural resources liability of the Defendant.

The Trustees failed to involve some of the most important and informed stakeholders. These stakeholders ought to have been involved in the critical discussions between the Plaintiffs and the Defendant regarding Natural Resource Damages.

From the very beginning of these negotiations, Plaintiffs Intervenor through their organization, HRI, have been asking to see both the raw data and estimated amounts of the Natural Resource Damage Assessment that the Trustees had prepared. They were told continually that these documents could not be made public during the negotiations and were considered to be privileged documents under the rules of the process.

Section 114 of the Consent Decree states:

Within 30 days of the effective date of this Consent Decree, Settling Defendant shall make the following payments:

- a. \$15,000,000 for Natural Damages, plus interest from the date of lodging of this Consent Decree;
- b. \$600,000 as mitigation for wetlands impacts associated with PCB contamination and with response actions at the Site, plus interest from the date of lodging of this Consent Decree;
- c. \$60,000 as mitigation for additional habitat impacts associated with PCB contamination and Removal Actions at the Site; and

10/03/00 TUE 12:30 FAX

d. \$75,000 for Restoration Work to be performed by the Trustees in Silver Lake.
(Consent Decree, pp. 258-59)

Section 124 of the Consent Decree outlines another aspect of the Natural
Damages settlement: the future contribution of the newly established Pittsfield Economic
Development Authority (PEDA):

PEDA shall pay to the Trustees a total of \$4,000,000 consisting of in-kind services
and/or a percentage of Net Revenues. PEDA intends to use good faith efforts to
satisfy this obligation as soon as feasible."

a. In-Kind Services. The Trustees may accept on-kind services of any type that may
be offered by or through PEDA, by the City of Pittsfield or by other entities,
including those who may be involved in the redevelopment at the GE Plant Area ...
Such in-kind services may include, but are not limited to, building space for use by
the Trustees (for restoration, coordination, administration and public information)
and habitat enhancements at the portion of the GE Plant Area to be redeveloped
under the Definitive Economic Development Agreement. (Consent Decree, pp. 276-
77)

Plaintiffs Intervenor object to the consideration of in-kind services as a
fulfillment of PEDA's \$4,000,000 NRD obligation. This NRD award hardly begins to
adequately compensate the Berkshire community for the loss of such a major resource: to further
reduce potential financial compensation for building space, coordination, and administration,
hardly serves the public interest. To the extent that the Trustees believe that these are pressing
needs, they ought to have negotiated appropriate reimbursement from the Defendant; not reduced
the public's already meager compensation.

An examination of the Industrial Economics, Inc. report, which served as the
preliminary assessment for natural resource damages the Agencies relied upon in their
negotiations, demonstrates the arbitrary and capricious nature of this aspect of the Consent
Decree. On Page 1-3, in the Limitations section, the authors state:

10/03/00 TUE 12:31 FAX

The nature of existing, readily available data and information limited our ability to complete all of the objectives described in the Statements of Work. In particular, **our injury assessment does not identify and quantify all of the natural resources injuries likely to present in the Housatonic River ...**

I. Contaminants of concern: Polychlorinated biphenyls (PCBs) are the primary contaminants of concern at this stage of the damage assessment. Though there are other hazardous substances present in the Housatonic River that may contribute to natural resource injuries, we have not addressed potential injuries resulting from exposure to substances other than the PCBs.

Geographic Scope: ... We have not assessed potential injuries and damages associated with Silver Lake and Unkamet Brook. Both may require additional scrutiny. In addition, we have not addressed specific injuries and damages that might be associated with the former oxbows located in Pittsfield, though we do recognize the potential importance of these areas to a final determination of restoration and compensation requirements. Furthermore, we recognize that these areas may be sources of continuing contamination to the Housatonic River.

1. Injury Assessment: Existing data are available to characterize the nature and extent of contamination in the Housatonic River environment but do not in all cases provide sufficient information to document natural resource injury. As a result our injury assessment focused on a summary of the existing contaminant concentration data and the likelihood that those data are indicative of natural resource injuries (which could be documented through additional data collection and/or analysis).

F. Restoration: Due to the limitations of the injury data and the dependence of restoration planning on the injury assessment, we focused our efforts in this area on the preliminary identification of categories of activities as well as specific activities that might be appropriate for the purposes of compensatory restoration. These activities do not include primary, physical restoration of natural resources (e.g., sediment removal), the specification of which would be the primary outcome of a completed injury assessment. (Housatonic River Preliminary Natural Resource Damage Assessment, Pp. 1-3 to 1-4) (Exhibit P) (Emphasis added).

The clearly stated limitations of the report itself buttress Plaintiffs Intervenor's previously stated concerns that the Trustees entered the negotiations with insufficient information: limited natural resource injury data; a failure to include potential injuries resulting

10/03/00 TUE 12:31 FAX

from exposure to substances other than the PCBs; and the failure to assess past active and passive use loss of Silver Lake are the most glaring examples. The acceptance of a Natural Resource Damage Award absent a thorough assessment for past use loss of a popular 26 acre lake in the heart of Pittsfield was arbitrary and capricious.

A review of the information sources that Industrial Economics relied upon reveals why their work is so limited – all the data they accessed was generated by GE, beginning with the MCP Interim Phase II Report of 1991 on through the May 1996 PICM that HRI has previously referred to. It is Plaintiffs Intervenor's belief that these reports have systematically under-reported the contamination at these sites. The Building 68 remediation coupled with the EPA's most recent acknowledgment of the contamination of the West Branch revealed major PCB contamination at levels and in places previously unreported.

As this report reveals, this lack of accurate data regarding contaminated river sediments and bank soils is absolutely critical. The authors state in Exhibit 2-1, on Page 2-3:

Sediments are the key link in the pathway to biological resource injuries. Sediment toxicity testing and/or a comprehensive review of the sediment toxicity literature is recommended. ... Contaminated floodplain soils may also be an important link in the pathway to biological resource injuries. Toxicity testing may be warranted. (Id, Pp. 2-3) (Exhibit P)

Because of the time rush associated with the negotiations, the Trustees were unable to access data that only now is emerging as a result of the most recent EPA testing and studies on the River.

The authors note in Exhibit 2-1: *Injury Assessment Summary – Housatonic River NRDA*, their lack of sufficient injury data about birds on Pages 2-3:

10/03/00 TUE 12:32 FAX

Lack of organism-specific data limits the current value of existing toxicity literature; expert opinion needed to judge likelihood of injury given PCB concentrations to which birds are potentially exposed. (Id. Pp. 2-3 to 1-4) (Exhibit P) (emphasis added)

New data generated by Susan Svirsky and her team at EPA, however, has emerged about the very high levels of contamination in young wood ducks. These PCB levels were the highest levels ever found in wood ducks in the nation (more than 17 times higher on average than levels found at the Lower Fox River Superfund Site in Wisconsin). These levels triggered an immediate health advisory by the Massachusetts Department of Public Health alerting hunters not to consume wood ducks from Pittsfield south to Rising Pond in Housatonic, and for hunters to skin and remove fat from ducks found in southern sections of the river. Those hunters were urged to limit intake to two meals a month. These ducks accumulated these high levels in a very short time, as a result of feeding on plants and small invertebrates.

The authors also note their lack of data about birds:

Previous investigations have not included the collection of organism-specific data that could be used to assess the effects of PCBs on bird populations that utilize habitat provided or influenced by the Housatonic River.

We note that a terrestrial ecosystem assessment (ChemRisk 1994) evaluated the density, diversity and reproductive success of avian species in a 5.85 hectare portion of the floodplain forest between New Lenox Road and Woods Pond. ... **This study concluded that the weight of evidence indicates that the 'floodplain ecosystem ... is not impacted by the presence of PCBs. (Id, Page 2-16) (Exhibit P) (Emphasis added).**

The GE-funded study the authors quote either totally ignored or drastically underestimated the quantity and/or the effects of PCB-contamination. The same floodplain ecosystem that GE consultants claimed in 1994 had no adverse impact as a result of PCBs, is the cause in 1999 for the highest known levels of PCB contamination found in wood ducks.

10/03/00 TUE 12:32 FAX

This lack of critical data also impacted the consultants' ability to adequately gauge injury to invertebrates and the authors have noted similar concerns about the lack of organism-specific data regarding mammals.

To quantify natural resource injuries, and gauge an appropriate restoration award, it is necessary to first establish a baseline condition for the resource, the *"conditions that would have been expected at the assessment area had the ... release of hazardous substances not occurred ..."* While the authors note that GE began to use PCBs in 1932 and continued their active use until 1977, they state that because PCBs were first detected in fish and sediments approximately 20 years ago, and because:

many damage assessments have limited the quantification of injury and damages to the period that began with the promulgation of CERCLA in December 1980" they have chosen **"the date of CERCLA promulgation as a conservative starting point for injury determination and quantification."** (Id, Pp. 2-4 to 2-6) (Exhibit P) (emphasis added).

Section 9607(f)(1) of CERCLA states:

There shall be no recovery under the authority of subparagraph (C) of subsection (a) of this section where such damages **and the release of a hazardous substance from which such damages resulted wholly before December 11, 1980."** (42 USC 9607(f)(1)) (emphasis added).

The fact of the matter is, that while GE stopped its use of PCBs before December 11, 1980, there has been since that time, and continues to be, a continuing release of PCBs and other substances into the Housatonic River and Silver Lake. GE, after all these years, has not yet controlled the release of hazardous substances into these natural resources and, as a result, there is on-going damage.

10/03/00 TUE 12:32 FAX

Plaintiffs Intervenor believe Industrial Economics, Inc. has misread the intent of CERCLA in this matter. And their decision to limit the "Temporal Scope" for injury determination and quantification to the onset of CERCLA does a grave disservice to all those whose activities in and on the River and Silver Lake have been limited all these years by contamination. These consultants from Cambridge, Massachusetts did not assess how Berkshires residents felt about and utilized their land and the local amenities. This lack of local input translated into lost opportunities for assessing other potential damages.

The authors state:

We also considered the potential magnitude of impacts on wildlife viewing and other general outdoor activities involving the Housatonic River environment. In this case, while the number of participants affected may be large, no data exist to allow us to generate a preliminary damage estimate. (Id, Page 3-17) (Exhibit P) (emphasis added).

Another important factor associated with an injury assessment is endangered and threatened species. The authors note:

As reported in the PICM (HE&C 1996), a total of 120 species of flora and fauna that have protected status at the state and federal level are known or likely to occur in the Housatonic River environment. We do not currently have information that would lead us to conduct a focused injury assessment of one or more of these species.

As for "*Collateral Injury During Remediation*", the authors state:

Our assessment of injury focuses on the current state of resources associated with the Housatonic River. However, for restoration planning purposes, it may be necessary to estimate the extent of additional injury that might occur as a result of remedial activities (e.g., loss of wetlands due to dredging) and include this estimate in the final accounting of injury. . (Id, Page 2-6) (Exhibit P) (emphasis added)

10/03/00 TUE 12:33 FAX

There are many other examples where the consultants acknowledged that they were hampered by a lack of data and an assessment of groundwater resources.

In light of concerns Plaintiffs Intervenors have noted in the section regarding the Former Oxbows and Groundwater Plaintiffs Intervenors note the authors' statements on Page 2-21 concerning injury assessment for Groundwater Resources:

We have not yet reviewed the groundwater data collected as part of the investigations of the other GE-Pittsfield disposal sites.

"In general, groundwater is injured if concentrations of hazardous substances in the groundwater exceed existing standards for a potable drinking water supply. Injury can also be established if concentrations of hazardous substances in the groundwater are sufficient to cause injury to other natural resources (e.g., surface water) (43 CFR 11.62(c)(1)(iv))."

As noted in Chapter 5, injury to groundwater resources would be a significant concern if the injury were based on the degradation of a public water supply. Without such an occurrence, the groundwater resource would be important only in the context of its contribution to the contamination of surface water. (Id, Page 2-21) (Exhibit P) (Emphasis added).

Clearly, contaminated groundwater has and continues to be a threat to the Housatonic River. But even beyond that clearly acknowledged injury to the River, the Agencies have overlooked Pittsfield's past desire to utilize its groundwater. The de facto contamination and loss of a highly valuable potential source of potable water – a source the City invested funds to study and develop – surely needs to be considered for possible natural resource damage claims. And as the authors previously have noted in Exhibit 2-1, an injury assessment for Groundwater:

Would be based on contamination of existing or potential drinking water supply; groundwater may be a continuing source of PCBs to the Housatonic River. (Id, Page 2-3) (Exhibit P) (Emphasis added).

10/03/00 TUE 12:33 FAX

The authors state on Page 2-22:

The services that the Housatonic River provides can be divided into three general categories: human use-recreational, human nonuse (i.e., passive value), and ecological (i.e., habitat). In terms of restoration, the first two services are addressed separately through our calculation of a preliminary estimate of compensable values for recreational and passive use losses (which relies largely on the observed injury to fish). Additional injury assessment must be geared toward the third category. Therefore, future data collection and/or analysis must focus on the exposure of different resources to PCBs through a variety of pathways. This effort should emphasize the effects that PCBs in the environment have had or are having on biological resources.

With yet another caveat regarding inadequate data, the authors made several estimates regarding damages:

The results presented are for settlement and case management purposes only. These analyses could be extended and refined through primary data collection and analysis at this site.

... compensable damages for those categories for which preliminary damage estimates have been developed include \$11 million to \$32 million in direct use losses and \$25 to \$250 million in passive use losses. Recreational fishing damages are estimated to be on the order of \$10 million to \$30 million. This range reflects uncertainty in the assumed recovery period (i.e., the date on which the human health risk advisories will be lifted), as well as uncertainty in the damages associated with fishing trips still taken to the river, despite the presence of elevated levels of PCBs. Recreational boating damages are believed to fall in the range of \$1 million to \$2 million; this range also reflects uncertainty in the assumed recovery period. Compensable losses associated with changes in recreational behavior can also be expressed in terms of the number of 'trips lost' or 'trips with diminished value,' as described in the following sections. Passive use losses are thought to fall in the range of \$25 million to \$250 million. This range reflects uncertainty in the extent of the 'market' for passive use values for the Housatonic environment, as discussed below.

While the presence of elevated levels of PCBs has likely had an effect on hunting and trapping activities near the Housatonic River, the relatively small number of participants involved leads us to conclude that this category of damages is likely to be small. In addition, wildlife viewing and other general outdoor activities may have been, and continue to be, affected by the presence of PCBs. However, no data are available to quantify this category of loss. Finally, economic damages may be associated with (1) reductions in the value of state-owned land in the Housatonic River floodplain; (2) contamination of groundwater resources in the

10/03/00 TUE 12:34 FAX

vicinity of the GE facility; (3) the increased cost of development in and near the river, as a result of the presence of PCBs; and (4) a diminishment in ecological services provide (sic) by this resource. These categories of damage, however, are outside the scope of this preliminary damage assessment. (Id, Pp. 3-1 to 3-2) (Exhibit P) (emphasis added).

While Plaintiffs Intervenors believe this report reveals major flaws in the assessment process, Plaintiffs Intervenors are nonetheless struck by the preliminary figures of between \$11 million to \$32 million for Recreational Damages, and \$25 million to \$250 million for Passive Use Losses.

While Industrial Economics cautions that these two categories cannot be automatically added because of possible overlap the sums nevertheless exceed by a large factor the amounts the Agencies and Trustees negotiated with the Defendant.³

A similar dynamic occurred with Silver Lake. Because of this, a Resource Damage Assessment that starts the clock on lost use with the passage of CERCLA legislation thoroughly misperceives the everyday experience and history of Berkshire County. Industrial Economics, Inc. made a good faith effort to fill its data gaps, but much of the pertinent data regarding lost use requires knowledge of, and experience with, Berkshire life.

³ As an exercise let's reduce the combined sums by 25% to account for possible duplications in accounting for lost use. That leaves a combined range of \$27 million to \$211,500,000. Now let's imagine a Resource Damage Assessment that takes into account the newly acquired data being gathered by the EPA's Susan Svirsky and her team working on the Ecological Risk Assessment. Add the emerging data about tree swallows, amphibians, small mammals and minks, etc. Add an accurate assessment about the lost use and ecological damage to Silver Lake. Take into account the fact that the Agencies now know the West Branch of the Housatonic River has large levels of PCB contamination, and assess that ecological damage. Do the same for Goodrich Pond which the Agencies now know has high levels of PCBs in bank soils. Add the appropriate assessment for loss of Pittsfield's groundwater. And with a Berkshire-based comprehensive study, more accurately estimate how wildlife viewing and other general outdoor activities have been, and will continue to be, affected by the presence of PCBs.

10/03/00 TUE 12:34 FAX

On Page 3-3, the authors state:

In order to develop estimates of lost or diminished value, we generally look to compare fishing pressure at a contaminated site prior to the issuance of public health advisories with current pressure (i.e., pressure given the presence of contaminants). Such comparisons of baseline angler behavior given a contaminant problem allow us to estimate, at a minimum, the number of trips lost or displaced from the site. **In this instance, however, data on fishing pressure prior to the public health advisories generally do not exist ...** (Id, Page 3-3) (Exhibit P) (Emphasis added).

Plaintiffs Intervenor respectfully submits that this information can be gathered by interviewing older active and retired members of the many sportsmen's clubs active in the County. George Darey, Chairman of Massachusetts Division of Fisheries and Wildlife, is only one of several local residents who grew up near the Housatonic and has fished and trapped for more than 60 years. An organized effort could gather the extension anecdotal testimony that is available, and, in the process fashion an accurate portrait of how many people fished before fish advisories were posted.

In fact, it was Massachusetts Fisheries and Wildlife who posted the river when it became apparent that the other Agencies hadn't gotten around to it.

Industrial Economics begins without accurate baseline data for fishing, then compounds the problem by its choice of current data for various stretches of the River from New Lenox Road south:

For each of these segments we consider both current and potential fishing pressure based on various data sources and assumptions. For example, for the New Lenox Road to Woods Pond segment we use data from a 1985-86 Connecticut angler survey to estimate potential fishing trips. Specifically, we use the data from Lakes Lillinonah and Zoar given their comparability to the New Lenox Road-Woods Pond segment in terms of fishery type (warm water), fish species, and fishing method (boat). We then assume that the 1985-86 data an adequate approximation of annual potential fishing pressure from 1980 forward. To

10/03/00 TUE 12:48 FAX

estimate actual fishing trips for the New Lenox Road-Woods Pond segment, we use data from a 1992 creel survey that includes fishing pressure estimates for Woods Pond and for the river segment between Woods Pond and Pittsfield. We calculate the fishing pressure per mile on the latter segment in order to estimate the number of trips on the portion of the segment downstream of New Lenox Road. (Id, Pp. 3-4 to 3-5) (Exhibit P) (Emphasis added).

It is possible to gather accurate data for current use without having to extrapolate from Connecticut surveys. George Darey, in particular, has an intimate knowledge of the New Lenox Road to Woods Pond stretch; canoes it and fishes it frequently. There are many people who have long-term past and continuing experience fishing that stretch of the river.

As Exhibit 3-3, all final estimates for fishing losses in Massachusetts begin with 1980. The lack of prior data severely reduces the estimated damages.

Plaintiffs Intervenors appreciate the fact that the Trustees and Agencies settled for a significant remediation package, and that such remediation fulfills in part the mandate of the Trustees to ensure that the injured resources be restored. Nevertheless, the Plaintiffs' and public's interest is ill-served by an underestimation of the damages these resources incurred and an inaccurate accounting of the lost use of these resources.

Plaintiffs Intervenors believe the public interest would be better served by conducting a full-fledged Natural Resource Damage Assessment that better incorporates the newly emerging EPA data and more accurately accounts for past and future lost Massachusetts usage.

Finally, Plaintiffs Intervenors believe that a November, 1999 Fox River/Green Bay Natural Resource Damage Assessment prepared in Wisconsin by the U.S. Fish and Wildlife

10/03/00 TUE 12:49 FAX

Service provides a more accurate model for a NRDA. According to Ecological Services

Assistant Regional Director Charlie Wooley:

Following intensive studies, rigorous methodologies and very conservative assumptions, which include factoring in an aggressive cleanup proposed by the Wisconsin Department of Natural Resources, **the Service has calculated over \$100 million in public damages due to the impacts of lost fishing opportunities from fish consumption advisories alone.** However, a less-complete cleanup would increase damages further. Additional economic studies which look at injuries beyond fish consumption advisories are nearing completion as well. (Exhibit Q) (emphasis added.)

These collective concerns with the grossly inadequate Natural Resource Damage Award, are one more reason why, this Consent Decree must not be approved by the Court in its present form.

12. Public Health Studies Published Recently Confirm The Dangers of Exposing Plaintiffs Intervenor and Other Residents of Pittsfield to Even Low Levels of PCBs.

Plaintiffs Intervenor would like to put their concerns about remediation levels in a larger public health context. Recent history has taught that there is almost always a lag between the introduction of potentially-dangerous chemicals and a clearly demonstrated understanding and quantification of the risks to human health.

The latest research on PCBs reveals a trend: lower levels than previously expected are causing cancers and creating developmental problems. Recent research seems to suggest that neurodevelopmental effects are the critical effects – the effects that show up first as exposure levels increase from zero. These results have been noted both in animal study and human studies.

10/03/00 TUE 12:49 FAX

According to a June, 1998 article entitled "*Assessing the Cancer Risk from Environmental PCBs*" by Vincent James Cogliano, Chief, Quantitative Risk Methods Group, USEPA:

Twenty years after their manufacture was halted, polychlorinated biphenyls (PCBs) remain a major environmental concern. Standards often have been based on cancer risk, yet before 1996 only commercial mixtures with 60% chlorine had been adequately tested. ... A recent study compared the cancer potential of the commercial mixtures Aroclors 1016, 1242, 1254, and 1260 (1). Its results strengthen the case that all PCB mixtures can cause cancer, although different mixtures have different potencies. (Environmental Health Perspectives, Vol. 106, No. 6, Exhibit R, Page 317)

Cogliano cites the 1998 Mayes study which found that a variety of Aroclors caused significant increases in liver cancer in rats. Some of the Aroclors were linked to increased thyroid cancer in male rats. According to Cogliano, the 1996 Brunner rat study found a 20% increase in liver tumors in females when they were exposed to doses of 25 ppm of Aroclor 1260; and a 48% increase when exposed to levels of 100 ppm. The Brunner study also revealed that less than lifetime exposure to the more persistent mixtures may pose disproportionately high risks. Aroclor 1260 is common to the GE/Pittsfield site.

A December 18, 1999 article in New Scientist reports on a link between PCBs and the death of harbor porpoises they studied since 1990. Peter Bennett and Paul Jepson of the Institute of Zoology in London have found that harbor porpoises who died stranded on British coast had an average level of PCBs of 31.1 milligrams per kilogram of blubber. They compared these levels to levels found in otherwise healthy porpoises who suffocated in fishing nets. These healthier porpoises had an average level of PCBs of 13.6 milligrams per kilogram of blubber.

10/03/00 TUE 12:50 FAX

In a paper delivered at the December 1999 International Symposium on Environmental Endocrine Disruption, Dr. John Peterson Myers noted:

The levels of exposure known to cause serious effects in laboratory experiments with animals is **dramatically lower, thousands if not millions of times lower, than what was even five years ago toxicologists thought was relevant.**

Every hormone system that has been studied carefully has been found vulnerable to one endocrine disruption or another. ... [and] the research is forcing us to ask about the adult consequences of fetal exposure. Niels Skakkebaek's work with testicular cancer, Fred vom Saal's with prostate effects, Dick Peterson's with dioxin impacts on sperm count, and many others, **fundamentally challenge generations of studies that appear to refute the links between chemical exposure and human health.** (Exhibit S) (Emphasis added).

Fetal exposure seems to be increasingly critical. A Science News article of November 27, 1997 entitled "*Breast Milk: a leading source of PCBs*" by Janet Raloff reports that a Netherlands study of 137 Rotterdam pre-schoolers found that those children who were breast-fed had 3.6 times more PCBs in their blood plasma than those who were fed formula. (Exhibit T).

A December 21, 1999 report by Reuters Health Information highlights an article in the December 18/25 issue of The Lancet that links organochlorines such as DDT and PCBs with gene mutations found in patients with cancer of the pancreas. The Reuters report declares:

The study is the first to link a genetic alteration commonly found in pancreatic cancer patients and an environmental substance, according to a statement issued by the editors of the journal.

'The results ... suggest new roles for organochlorines in the development of several cancers in human beings,' according to Professor Miquel Porta from Institut Municipal d'Investigacio Medica in Barcelona, Spain and associates. ...

Patients who were already diagnosed with pancreatic cancer were 5 to 10 times more likely to show increased blood levels of organochlorines than were patients hospitalized for reasons other than cancer... (Exhibit U) (Emphasis added)

10/03/00 TUE 12:50 FAX

The Lancet article states:

Organochlorine compounds such as p,p9-DDT, p,p9-DDE, and some PCBs could play a part in the pathogenesis of exocrine pancreatic cancer through modulation of K-ras activation. ("Serum concentrations of organochlorine compounds and K-ras mutations in exocrine pancreatic cancer" Miquel Porta, etc. The Lancet, December 18, 1999, v354 i9196, p2125, Exhibit U)

A January 3, 2000 article on the WebMD website by Rochelle Jones reports that:

Rapidly falling sperm counts in the United States. Rising rates of genital defects in male infants. Unprecedented numbers of cases of testicular cancer among young American males. Scientists are increasingly worried that these problems are being caused by environmental estrogens, man-made chemicals capable of interfering with the hormones that regulate the male reproductive system. ...

A review of data from 61 studies, published in BioEssays in 1999, found that the dramatic decline of average sperm density in the United States and Western Europe may be even greater than previously estimated. An earlier review, conducted by researchers at the University of Copenhagen in 1992, found that sperm density had fallen by 50 percent between 1938 and 1990. In the 1999 reanalysis of the controversial studies, Shanna Swan, Ph.D., a professor at the University of Missouri-Columbia, confirmed the findings and concluded that the decline may be more than 50 percent. (Exhibit V)(Emphasis added).

The people of the GE/Pittsfield site have had and continue to have many routes of exposure. According to Vincent James Cogliano, Chief, Quantitative Risk Methods Group, USEPA:

Capacitor manufacturing workers exposed to a series of commercial mixtures with 41-54% chlorine had increased mortality from liver, gall bladder, and biliary tract cancers, gastrointestinal tract cancers, or malignant melanoma. An analysis of these and a smaller study found the combined results significant for liver, gall bladder, and biliary tract cancers and for malignant melanoma. Earlier, petrochemical refinery workers exposed to Aroclor 1254 and other chemicals had significantly increased mortality from increased melanoma. More recently, electric utility workers exposed to PCBs had significantly increased mortality from malignant melanoma and brain cancer.

Recent case-control studies have found a significant association between non-Hodgkin's lymphoma and PCB concentrations in adipose tissue and serum. In a

10/03/00 TUE 12:51 FAX

general population, dietary consumption of rice oil accidentally contaminated with PCBs and chlorinated dibenzofurans, which can be formed when PCBs are heated above 270°C, was associated with significantly increased mortality from liver cancer and lung cancer. (Exhibit R, Id, Pg. 317)

PCBs bioaccumulate, and as the chemical works its way through the food chain, the most potent PCB congeners, and the most difficult to eliminate, are passed on and up. Along the way PCBs can undergo a chemical transformation, where they no longer resemble the original Aroclor. Cogliano writes

... ingesting contaminated sediment or soil or inhaling contaminated dust can pose relatively high risks. ... Bioaccumulated PCBs appear to be more toxic than Aroclors and more persistent in the body. The Aroclors tested in laboratory animals were not subject to prior selective retention of persistent congeners through the food chain. For exposure through the food chain, therefore, risks can be higher than those estimated in this assessment. ... **Early-life exposure is treated with special concern because of the potential for higher exposure during pregnancy and nursing and the possibility of greater perinatal sensitivity.** Metabolic pathways are not fully developed in human infants; for example, some nursing infants receive a steroid in human milk that inhibits the activity of glucuronyl transferase, reducing PCB metabolism and elimination. **In animals, Aroclor 1260 induced high incidences of liver tumors when exposure began early in life and lasted a short time.** ... It is, therefore, important to assess early-life exposure through human milk and other pathways. ... Finally, the EPA's assessment proves that good research can improve risk assessments. (Exhibit R, Id, Pp. 320-322). (Emphasis added).

Recent studies have found a link between low levels of PCB exposure with immune system suppression and developmental neurotoxicity. Research in the Netherlands has linked dietary exposure to PCBs and dioxins – found in dairy products – with decreases in cognitive functioning. Negative effects were found at levels as low as 3 ppb in maternal plasma.

The fact that levels as low as 3 ppb have been linked with observable problems in cognitive functioning is troubling given the results of the September 1997 Massachusetts

10/03/00 TUE 12:51 FAX

Department of Public Health study, "Housatonic River Area PCB Exposure Assessment Study."
(Exhibit W.)

Plaintiffs Intervenors through their organization, HRI, were critical of this study and questioned its methodology and the fact that only 79 participants had blood drawn. (All volunteers who showed up at a table on the day the samples were drawn.) Nevertheless, the results are illuminating. Serum PCB levels ranged from not detect to 115 ppb, with a mean of 9.07 ppb and a median of 6.60 ppb. 53 of the 69 participants who had no opportunity for occupational exposure had a mean serum PCB level of 5.77 ppb (median 4.86 ppb). Those with opportunities for occupational exposure had a mean level of 15.79 ppb (median 8.81 ppb).

Participants had a range of exposure scenarios: fish-eating, eating fiddlehead ferns from the watershed, canoeing in the Housatonic, bird watching, other recreational activities along the River, hunting, etc.

When evaluating these results, the Massachusetts Department of Public Health relied on an outdated estimate of U.S. background serum PCB levels of 4 to 8 ppb. They therefore found that these levels fell within the normal background range.

The data presented here indicates that background serum levels are closer to 1 ppb. In which case, Berkshire County levels are many times higher than national levels, and there is serious reason to be concerned that as much contamination as possible is removed from the community.

III. Conclusion

For the foregoing reasons, Plaintiffs-Intervenors respectfully submit that the Court should deny the Agencies' motion to enter the Consent Decree. The Decree violates several provisions of CERCLA, and is unreasonable, arbitrary and capricious. Plaintiffs-Intervenors believe that a better settlement must be negotiated between GE and the Agencies, one which takes into account not only the private interests of the City of Pittsfield and the EPA (See Exhibit X) but also those of Plaintiffs-Intervenors and all the citizens of Berkshire County.

A reasonable settlement must include, at a minimum:

- More extensive removal of contaminated sediments and bank soils in the 1st 1/2-Mile Stretch of the Housatonic River
- A remediation strategy that does not require a geotextile liner for the River
- Construction of a slurry ditch, wherever technically feasible, to more effectively guarantee source control along the 1/2-Mile Stretch of the Housatonic River
- Treatment of the contaminated sediments and bank soils instead of landfilling at Hill 78 and Building 71 landfills
- Excavation and removal of all contaminated sediments and bank soils in Silver Lake
- An extensive sampling program, at depth, for the West Branch; and a thorough removal of all contaminated sediments and bank soils
- A thorough investigation of the GE contaminated wood giveaway program and complete cleanup of affected properties
- A thorough investigation of buildings with PCB-contaminated earth floors and a complete cleanup of affected properties

10/03/00 TUE 12:52 FAX

- Excavation and removal of all PCB-contaminated sediments and bank soils in the former Oxbow Areas, and especially the Newell Street properties, to the Massachusetts DEP Default Standard of 2 ppm
- Immediate treatment of PCB-contaminated groundwater throughout the GE site
- A more accurate Natural Resource Damage Assessment and a Natural Resource Damage Award from the Defendant that better compensates the Trustees for damages and lost use.

September 29, 2000

Respectfully submitted,



Cristóbal Bonifaz (BBO 548-405)

John C. Bonifaz (BBO 562-478)

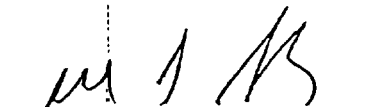
LAW OFFICES OF CRISTOBAL BONIFAZ

48 North Pleasant Street

P.O. Box 2488

Amherst, MA 01004-2488

Tel: 413-253-5626



Joseph C. Kohn

Martin D'Urso

Michael J. Boni

Neil L. Glazer

KOHN, SWIFT & GRAF, P.C.

One South Broad Street, Suite 2100

Philadelphia, PA 19107

(215) 238-1700

CERTIFICATE OF SERVICE

I, Neil Glazer certify that today, September 28, 2000 I served this Memorandum of Law in Opposition to Approval of The Consent Decree, by first class mail, upon the following counsel of the parties designed to accept service:

Attorney for the United States:

Cynthia S. Huber
Senior Attorney
U.S. Department of Justice
P.O. Box 7611
Washington, D.C. 20530-7611
(202) 514-5273

Attorney for the Commonwealth of Massachusetts:

James R. Milkey
Assistant Attorney General
Chief, Environmental Protection Division
200 Portland Street
Boston, Massachusetts 02114
(617) 727-2200, Ext. 3347

Attorney for the State of Connecticut:

John M. Looney
Assistant Attorney General
State of Connecticut
55 Elm Street
P.O. Box 120
Hartford, Connecticut 06141
(860) 808-5318

Attorney for the General Electric Company:

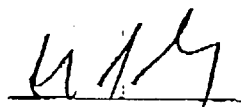
Samuel Gutter, Esq.
Sidley & Austin
1722 Eye Street N.W.
Washington, D.C. 20006
(202) 736-8711

Attorney for the General Electric Company:

James R. Bieke
Shea & Gardner
1800 Massachusetts Avenue, N.W.
Washington, D.C. 20036
(202) 828-2036

Attorney for the City of Pittsfield
And the Pittsfield Economic Development Authority

Jeffrey M. Bernstein, Esq.
Bernstein, Cushner & Kimmell, P.C.
One Court Street, Suite 700
Boston, MA 02108



Neil Glazer